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ABSTRACT

This publication provides a comprehensive overview of work done across all parts of the National Center for Education Statistics (NCES). Each issue contains short publications, summaries, and descriptions that cover all NCES publications and data products released in a 3-month period. Each issue also contains a message from the NCES on a timely subject and a featured topic with invited commentary. Some of the topics covered include Paying for College, Elementary and Secondary Education, Postsecondary Education, Libraries, International Statistics, Crosscutting Statistics, Data Products, Other Publications, and Funding Opportunities. (AMT)

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Editorial Note

National Center for Education Statistics

The National Center for Education Statistics (NCES) fulfills a congressional mandate to collect and report "statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."

Education Statistics Quarterly

Purpose and goals

At NCES, we are convinced that good data lead to good decisions about education. The *Education Statistics Quarterly* is part of an overall effort to make reliable data more accessible. Goals include providing a quick way to

- identify information of interest;
- review key facts, figures, and summary information; and
- obtain references to detailed data and analyses.

Content

The *Quarterly* gives a comprehensive overview of work done across all parts of NCES. Each issue includes short publications, summaries, and descriptions that cover all NCES publications and data products released during a 3-month period. To further stimulate ideas and discussion, each issue also incorporates

- a message from NCES on an important and timely subject in education statistics; and
- a featured topic of enduring importance with invited commentary.

A complete annual index of NCES publications appears in the Winter issue (published each January). Publications in the *Quarterly* have been technically reviewed for content and statistical accuracy.

General note about the data and interpretations

Many NCES publications present data that are based on representative samples and thus are subject to sampling variability. In these cases, tests for statistical significance take both the study design and the number of comparisons into account. NCES publications only discuss differences that are significant at the 95 percent confidence level or higher. Because of variations in study design, differences of roughly the same magnitude can be statistically significant in some cases but not in others. In addition, results from surveys are subject to nonsampling errors. In the design, conduct, and data processing of NCES surveys, efforts are made to minimize the effects of nonsampling errors, such as item nonresponse, measurement error, data processing error, and other systematic error.

For complete technical details about data and methodology, including sample sizes, response rates, and other indicators of survey quality, we encourage readers to examine the detailed reports referenced in each article.

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Finding Out How Students Pay for College

Learning how students pay for college is the primary purpose of the National Postsecondary Student Aid Study (NPSAS), which was conducted first in 1986–87 and repeated in 1989–90, 1992–93, 1995–96, and 1999–2000. The next NPSAS data collection is scheduled for 2003–04. NPSAS collects detailed enrollment, financial, and demographic information about a nationally representative sample of students enrolled at all types of public and private postsecondary institutions. This information is used to find out how much students pay for college and where they get the money needed to cover their expenses.

Actual Expenses Versus Student Budgets

To determine how much they paid, students responding in 1986–87, 1989–90, and 1992–93 were asked to report their actual expenses in a number of categories, such as tuition and fees, books, rent, food, transportation, and personal expenses. This approach may produce a reasonable approximation of the education expenses of students who live on campus and attend full time, because these students typically receive bills from their institution for tuition and room and board, which are their major expenses. However, it does not work nearly as well for older, part-time, or commuting students, whose non-tuition expenses are less clearly related to their education. Neither the student respondent nor the NPSAS analyst can easily calculate the education-related housing expenses of a 35-year-old part-time student who owns a house, for example, or of a younger student who lives at home.

Starting in 1995–96, NPSAS has relied on the student budgets determined by institutions, rather than on the expenditures reported by students, to measure how much students pay. An institutional budget represents the institution's best judgment about how much a student would need to spend on tuition and books as well as living expenses. Institutions develop a series of budgets to reflect different circumstances (such as living on campus or at home and attending full time or part time) and assign one of these budgets to each aid applicant. NPSAS assigns budgets to nonaided students in the same way. These budgets appear to be the best way to estimate expenses fairly and consistently, even though they may not accurately represent what any particular student spends. (To permit trend analyses, budgets have been added to the NPSAS analysis files for 1989–90 and 1992–93.)

Personal Financial Resources and Financial Aid

Understanding how students pay for college also involves identifying the sources of funds—either personal financial resources or financial aid—and how much students obtain from each source. Personal resources may include earnings from work while enrolled, savings, and contributions from parents, relatives, or friends. Just over half (55 percent) of all undergraduates received some type of financial aid in 1999–2000. The major forms of aid are grants and scholarships, which do not have to be repaid; loans, which must be repaid after the student graduates or leaves school; and work-study, which pays the student a stipend in return for work.

NPSAS obtains accurate financial aid information by merging several databases. The U.S. Department of Education databases provide detailed information about all Pell Grant awards and federal student loans. Institutional financial aid offices provide records of other federal aid, state aid, and institutional aid. They also provide records of scholarships from private organizations, such as foundations or unions, if the scholarship funds are disbursed to the student through the financial aid office. In the NPSAS telephone interview, students report on aid not administered by the financial aid office, such as employer assistance or grants from private organizations paid directly to the student. Because these types of aid come in discrete chunks, and typically only once a year or term, student reports are probably reasonably accurate.

The real challenge is learning about students' own financial resources. In contrast to the multiple sources of information about financial aid, the only source of information about personal financial resources is the telephone interview. The limited time available on the telephone and the reluctance of individuals to disclose the details of their financial circumstances constitute one set of barriers to obtaining accurate information. But even when students are willing to provide the information, they are likely to find it difficult to recall exactly how much they earned, saved, or were given by their parents or others over the course of a full academic year.

The parental contribution is the most elusive piece of the puzzle. When students receive a monthly allowance from their parents, they may be able to estimate the parental contribution reasonably accurately, but family financial arrangements are often less formal. Parents may pay some bills directly—tuition, room and board, or credit card bills, for example—and students may not know or remember the exact amounts. In addition, many parents routinely make in-kind contributions such as groceries, clothing, cars, and household items, which students may either forget or be unable to value, or which may not really be education-related. While policymakers want to know not only how much parents are contributing, but also where they are getting the money—from current income, savings, or borrowing, for example—students usually do not know the answer.

To learn about parental contributions in 1999–2000, students under 30 years of age were asked whether their parents or someone else paid some or all of their tuition, how much their parents gave them for school-related expenses other than tuition, and if they lived with their parents while enrolled. However, the numbers these students reported seem unrealistically low, especially for high-income students. For example, the average high-income dependent student attending a private not-for-profit institution full time—and having a nontuition budget of $9,100—reported earnings while enrolled of $2,000 and a parental contribution for nontuition expenses of just $1,000.

A Picture of Education Expenses and Resources

Although we may never be able to assemble a completely accurate picture of either education expenses or financial resources, each successive round of NPSAS has produced more reliable and consistent information about how much students pay for college and where the money comes from. This issue of the *Quarterly* features two reports that draw on NPSAS data to illuminate various aspects of this complex picture.

How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999–2000
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How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999–2000

Susan P. Choy and Ali M. Berker

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Postsecondary Student Aid Study (NPSAS).

Paying for College

Paying for college has always been considered primarily a family responsibility, to be met to the extent possible through some combination of income, savings, and borrowing. However, a variety of government, institutional, and private programs exist to help students who lack the necessary financial resources or whose academic or other achievements qualify them for scholarships. This aid may take the form of grants or scholarships, which do not have to be repaid; loans, which must be repaid; or work-study, which provides aid in exchange for work, usually in the form of campus-based employment. In 1999–2000, more than half (55 percent) of all undergraduates received some type of financial aid to help pay for college (Berkner et al. 2002).

Originally, the goal of federal student aid policy was to increase college access for students from low-income families, but as tuition increased, this objective was expanded to make college more affordable for students from middle-income families as well (Spencer 1999). Federal grant aid is targeted to low-income students, while subsidized loans are available to both low- and middle-income students. In the 1992 Amendments to the Higher Education Act of 1965, Congress made it easier for students to qualify for financial aid, raised loan limits, and made unsubsidized loans available to students regardless of need. In the past decade, the federal government has increasingly relied on the tax code as a tool to assist students. The Taxpayer Relief Act of 1997 and the 2001 Economic Growth and Tax Relief

Reconciliation Act include a number of provisions designed to help individuals and families to save for, repay, or meet current higher education expenses by reducing their federal income tax liability. Some of these benefits phase out as income increases, but they are broadly available (U.S. General Accounting Office 2002). In addition to federal aid, students may have access to state- or institution-sponsored aid (Berkner et al. 2002). Income restrictions for these programs vary. Finally, most states offer prepaid tuition or college savings plans to help students at all income levels pay for college (The College Board 2003).

As debates continue over who should get what kinds of aid and how much, it is important to know what students and their families are actually paying for college, where the money is coming from, and how students' methods of paying vary with their family income and the type of institution they attend. To inform these debates, this report uses data from the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000) to describe how the families of dependent students[1] used financial aid and their own resources to pay for college, emphasizing variation by family income and type of institution attended. The study covers students who were dependent undergraduates attending a public 2-year college or a public or private not-for-profit 4-year institution full time, full year during the 1999–2000 academic year.[2] Approximately one-quarter of all undergraduates met the criteria for inclusion in the analysis.[3]

The tables in this report show many aspects of student financing at five types of institutions, and within each type, at five levels of family income. The categories of institutions were chosen to group institutions that are similar in terms of mission, characteristics of students, and, especially, levels of price and availability of institutionally funded student aid. They include public 2-year; public 4-year nondoctoral; public 4-year doctoral; private not-for-profit 4-year nondoctoral (except liberal arts); and private not-for-profit 4-year doctoral and liberal arts institutions.[4] The family income levels were chosen to correspond roughly to levels of financial need and eligibility for certain types of federal grants and loans.

Low-income students have a greater need for financial aid than middle-income students within each type of institution, and students at both income levels need more financial aid at higher priced institutions than at lower priced ones. By reporting data by income within type of institution, the tables show both of these patterns. Differences between public and private not-for-profit institutions reflect their different prices of attending. Although data are presented separately in the tables for the five income groups, the discussion focuses on students from low-income (less than $30,000) or middle-income ($45,000–$74,999) families.

Financial Need

For aid purposes, a student's financial need is defined as the difference between the price of attending and the expected family contribution (EFC). A student budget, which represents the price of attending the institution selected, is calculated for each student. It takes into account the amounts needed to cover tuition and fees, books and materials, and reasonable living expenses in that area. The amount allocated for living expenses depends on whether the student lives on campus, independently off campus, or with parents or relatives. The EFC is calculated using a formula based primarily on family income and assets (with some adjustments for circumstances, such as the number of siblings in college), and is not related to the price of attending. Thus, a student would be expected to contribute the same amount regardless of the institution selected but would have greater financial need at an institution with a high price of attending than at an institution with a low one.

In 1999–2000, average tuition and fees for full-time dependent students ranged from $1,600 at public 2-year institutions to $19,900 at private not-for-profit doctoral and liberal arts institutions, and the average student budget (i.e., price of attending) ranged from $8,600 to $28,800. The average EFC for low-income students (calculated including those with a zero EFC) was between $1,000 and $1,500, but many low-income students (between 31 and 45 percent, depending on the type of institution attended), had a zero

[1]Undergraduates under 24 years of age are generally considered financially dependent for the purposes of determining financial aid eligibility unless they are married, have legal dependents, are veterans, or are orphans or wards of the court. However, financial aid officers are permitted to use their professional judgment to declare students to be independent under unusual circumstances.

[2]Students who attended more than one institution were excluded from the analysis because of the confounding effects of attending different-priced institutions and receiving different financial aid awards at each institution. Students who were not U.S. citizens or permanent residents were also excluded because they are not eligible for federal financial aid. Students who attended private for-profit institutions or less-than-4-year institutions other than public 2-year were excluded because there were not enough full-time dependent students at those types of institutions to make meaningful comparisons.

[3]About one-half of all undergraduates are independent, and about one-half of dependent students do not enroll full time, full year at one institution.

[4]On several key measures related to paying for college, including tuition, institutional and other forms of aid, and students' highest degree expectations, students at private not-for-profit liberal arts institutions appear to be more like their counterparts at doctoral than at nondoctoral institutions. Therefore, they were grouped with doctoral institutions for this analysis.

EFC. Because EFC depends on the families' financial circumstances and is not affected by where students enroll, variation across institution types reflects variation in the financial circumstances of the students who chose those types of institutions. Virtually all middle-income students had a positive EFC (at least 99 percent at each type of institution), which averaged between $8,300 and $9,000.

Virtually all low-income students (99 percent or more) had financial need, regardless of where they enrolled. Among those with need, the average amount ranged from $7,400 at public 2-year institutions to $26,000 at private not-for-profit doctoral and liberal arts institutions. The percentage of middle-income students with financial need varied, depending on where they enrolled. At public 2-year institutions, 48 percent of middle-income students had financial need, but at private not-for-profit doctoral and liberal arts institutions, 97 percent had need. The average amount for middle-income students with need ranged from $2,600 at public 2-year institutions to $20,900 at private not-for-profit doctoral and liberal arts institutions.

Financial Aid

Most low-income students received financial aid: 78 percent at public 2-year institutions and 86 to 98 percent at 4-year institutions. Among middle-income students, less than half received aid at public 2-year institutions (40 percent), but 71 to 93 percent did so at 4-year institutions. Students from both income groups were more likely to receive aid at private not-for-profit nondoctoral institutions than at any other type of institution.

Types and amounts of aid

To illustrate the relative importance of the different types of aid for low- and middle-income students across institution types, figure A shows the average amounts of each type of aid computed using all students as the base (i.e., including unaided students). It shows several patterns: more aid for low-income students, more aid as price goes up, more grant aid for low-income students than middle-income students at most types of institutions, and more loans than grants for middle-income students at public institutions.

Relative importance of grants and loans

For aided low-income students, aid covered almost half (48 percent) of the student budget, on average, at public 2-year institutions. At both types of public 4-year institutions and at private not-for-profit nondoctoral institutions, aid covered 64 to 68 percent of the student budget, and at private not-for-profit doctoral and liberal arts institutions, it covered 75 percent. For aided middle-income students, aid covered 29 percent of the student budget, on average, at public 2-year institutions, 46 to 50 percent at public 4-year institutions, and 62 to 63 percent at private not-for-profit 4-year institutions.

At each type of institution, low-income students had more of their budget covered by financial aid than middle-income students, on average, and a greater proportion was covered by grants. For low-income students, 39 to 49 percent of their student budget was covered by grants, on average, depending on the type of institution they attended. For middle-income students, the percentage of their student budget covered by grants did not exceed 16 percent at public institutions, but in the private not-for-profit sector, it was higher: 32 percent at nondoctoral institutions and 37 percent at doctoral and liberal arts institutions. The percentage of the total student budget covered by loans was greater for middle-income students than for low-income students except at private not-for-profit doctoral and liberal arts institutions, where no difference was detected.

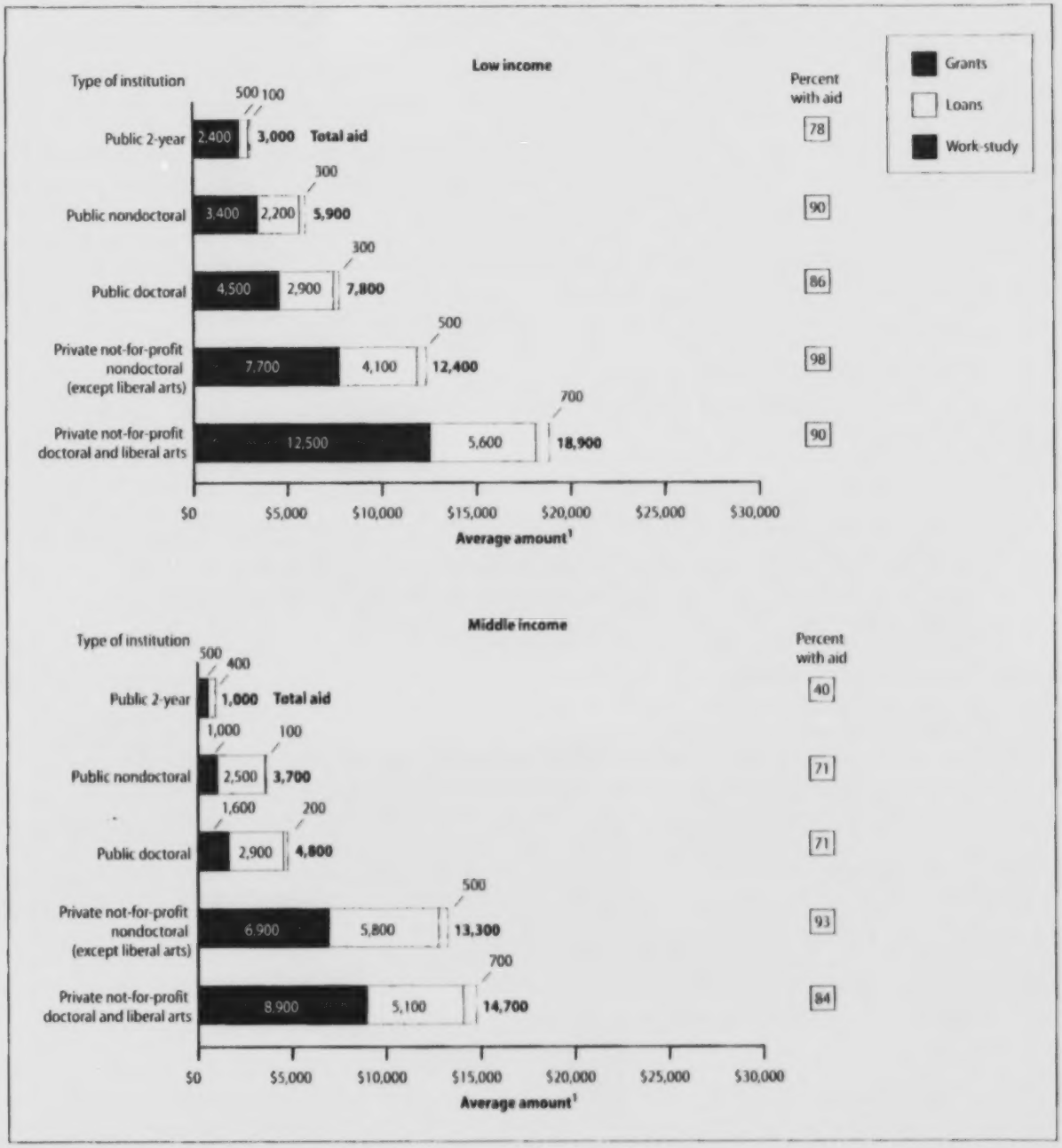
Sources of aid

For low-income students who received financial aid, federal aid (including grants and loans) constituted from 46 to 73 percent of total aid, on average, depending on the type of institution attended. For aided middle-income students, it ranged from 30 to 61 percent. The relative contribution of state grants to total aid was also higher, on average, for low-income students than for middle-income students except at public 2-year institutions, where no difference was detected. At each type of institution, institutional aid made up a greater proportion of total aid, on average, for middle-income students than for low-income students.

Remaining (unmet) need

Remaining, or unmet, need represents the amount of the total budget not covered by either the EFC or financial aid. In 1999–2000, about one-half of all full-time dependent students had a calculated unmet need. Depending on the type of institution attended, 74 to 92 percent of low-income students and 38 to 65 percent of middle-income students had unmet need. At each type of institution, low-income students were more likely than middle-income students to have unmet need. Among students with unmet need, the average amount ranged from $4,000 to $9,300 for low-income students and from $2,100 to $10,700 for middle-income students. At public institutions, low-income students with unmet need averaged higher amounts than their middle-income counterparts. At private not-for-profit

Figure A. Average amount of aid received by all full-time, full-year dependent low- and middle-income undergraduates, by type of aid and type of institution, and percentage with aid: 1999–2000



[1]Averages computed using both aided and unaided students.

NOTE: Limited to undergraduates who attended only one institution and who were U.S. citizens or permanent residents. Detail may not sum to totals because types of aid other than grants, loans, and work-study are not shown. Average "other" aid did not exceed $200 at any institution type. The average amount of work-study aid received by middle-income students at public 2-year institutions rounds to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

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4-year nondoctoral institutions, no difference was detected between the two groups, and at private not-for-profit doctoral and liberal arts institutions, the apparent difference was not statistically significant.

After Financial Aid

The amount of money that students and their families have to pay (after financial aid) during a given year to allow the students to enroll is called the "net price." For this analysis, net price was computed as total price minus all financial aid *except* work-study (i.e., total price minus grants and loans).[5] Because work-study programs provide wage subsidies to institutions and other employers, they help students obtain jobs. From the perspective of students, however, work-study earnings are still earnings from work and therefore they would have reported them in the telephone interview when asked about work. If work-study earnings were included in aid, they would be double-counted later in this analysis when the relative contributions of aid and work are examined.

Among low-income students, those at public nondoctoral institutions appeared to have the lowest average net price ($4,600). No differences were detected in the average net prices of low-income students at public 2-year, public doctoral, and private not-for-profit nondoctoral institutions ($5,400 to $6,000). Because there were differences in the average prices paid at these types of institutions (as discussed earlier), more financial aid compensated for the higher prices. Low-income students at private not-for-profit doctoral and liberal arts institutions had the highest average net price ($9,100).

Among middle-income students, those at public 2-year and public 4-year nondoctoral institutions had the lowest net prices ($7,700 and $7,400, respectively). Their counterparts at public doctoral and private not-for-profit nondoctoral institutions had the next highest net prices ($8,700 and $9,400, respectively). Middle-income students at private not-for-profit doctoral and liberal arts institutions had the highest average net price ($14,600).

Work

Working during the school year is the norm, even for full-time students. In 1999–2000, 76 percent of all full-time dependent students worked while enrolled (including students with work-study jobs). Those who worked put in an average of 22 hours per week and earned an average of $5,100, including hours and earnings from work-study programs. At each institution type, no difference was detected between the percentages of low-income and middle-income students who worked, the amount they worked, and the average amount they earned.

Help from parents

Reflecting the greater financial resources of their families, middle-income students were more likely than their low-income peers to report that they received help from parents paying their tuition at each type of institution. With respect to nontuition expenses, middle-income students were more likely than low-income students to report receiving help at public doctoral institutions (34 percent vs. 28 percent), but no differences between the two groups were detected at other types of institutions.

Paying for College: A Summary

Figure B shows data for low- and middle-income students separately, with two horizontal bars for each institution type. The top bar in each set represents the average student budget and its two components: financial aid (excluding work-study) and what students and their families must pay (net price). The lower bar shows the known family effort: loans (including PLUS loans) and student earnings from work while enrolled (assuming that these earnings are used entirely for educational expenses). The averages shown include both aided and unaided students in order to indicate the relative contributions of the different amounts to the totals.

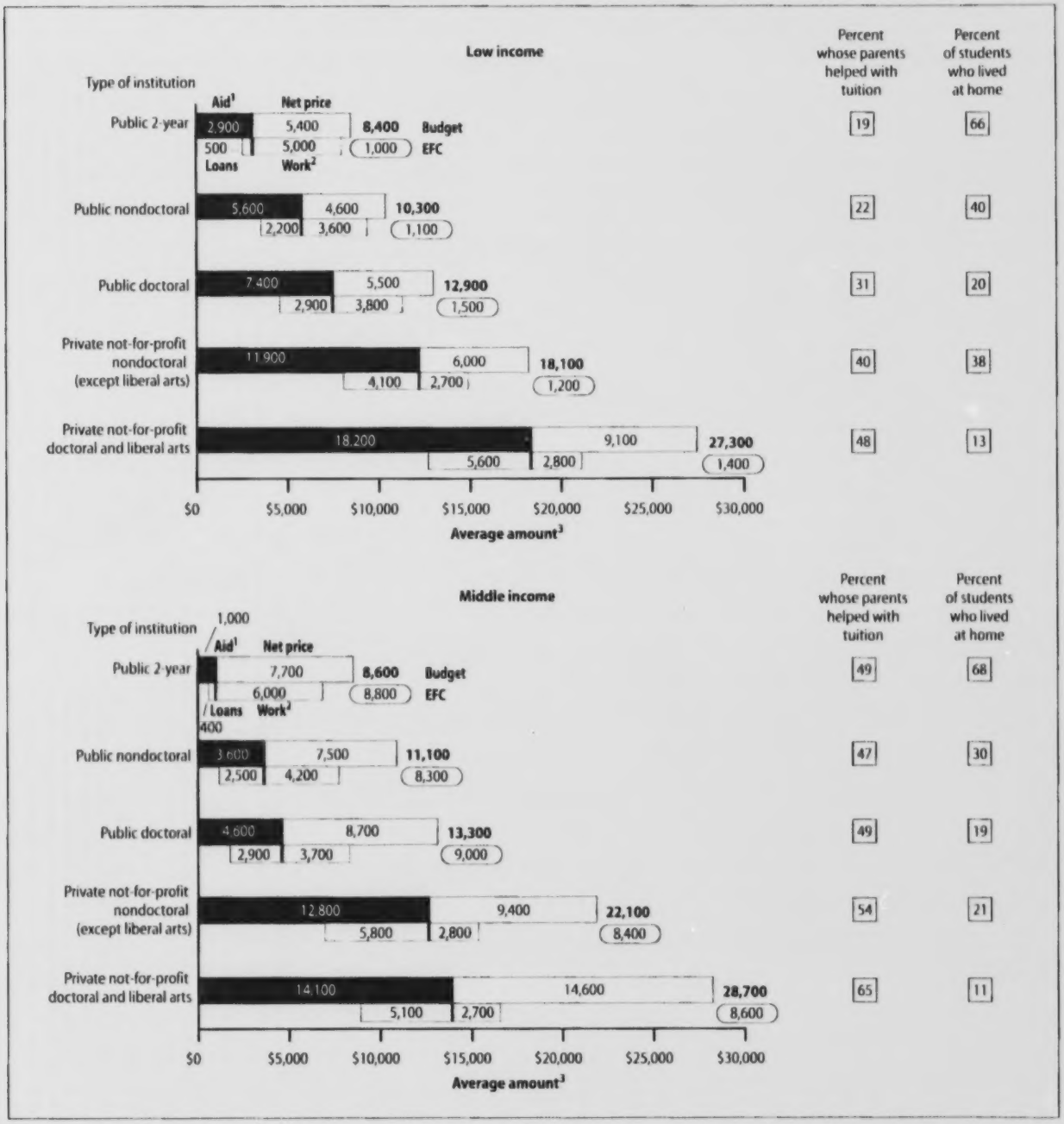
The circled numbers represent the expected family contribution (EFC). When the net price is greater than the EFC—that is, when the amount students and their families must pay is greater than the amount they are expected to pay—students have unmet financial need. A comparison of the EFC to work specifies how much of the family contribution theoretically could have come from student work while enrolled.[6] The boxes on the right show the percentages of students whose parents (or others) helped pay their tuition and the percentages who lived at home.

For low-income students at each type of institution, the EFC fell short of the price students had to pay, even after financial aid. At public 2-year institutions, low-income students appeared to cover their educational expenses by

[5] The calculation of net price does not include the future cost of repaying loans. For students with loans as part of their financial aid package, the total amount they pay for their education includes the amounts they borrow, plus interest, in addition to the amounts paid while enrolled.

[6] There is no way of knowing what sources of funds families actually use.

Figure B. Average amounts for selected components of the average student budget for full-time, full-year dependent low- and middle-income undergraduates, sources of funds, and percentage of students who received support from their parents, by type of institution: 1999–2000



HOW TO READ THIS FIGURE: The top bar in each set represents the average student budget with its two components: financial aid (excluding work-study) and what students and their families must pay (net price). The lower bar shows the known family effort: loans and student earnings from work while enrolled (assuming that these earnings are used entirely for educational expenses). The circled numbers represent the expected family contribution (EFC). When the net price is greater than the EFC—that is, when the amount students and their families must pay is greater than the amount they are expected to pay—students have unmet financial need.

[1] Aid includes grants/scholarships, loans, and "other" aid (such as ROTC, aid for veterans' dependents and survivors, and other unidentified types of aid), but excludes work-study aid. Earnings from work-study participation are included in "work." Therefore, this average amount of aid differs from the total shown in figure A.

[2] Includes work-study earnings.

[3] Average amounts include unaided as well as aided students.

NOTE: Limited to undergraduates who attended only one institution and who were U.S. citizens or permanent residents. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

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receiving aid (primarily grants), living at home, and working while enrolled. At public 4-year institutions, they appeared to depend primarily on aid (both grants and loans) and their own earnings, with some help from their parents. While low-income students at private not-for-profit 4-year institutions received substantial amounts of aid, it is difficult to understand how they covered their educational expenses given the gap between the net price and EFC and the amount these students reported earning on their own, especially at private not-for-profit doctoral and liberal arts institutions where relatively few students lived at home. To meet their expenses, low-income students at private not-for-profit 4-year institutions may have reduced their standard of living below the institutionally determined budget; acquired additional funds through gifts or loans from grandparents, noncustodial parents, or others whose financial resources are not considered in the EFC formula; or used more of their income or savings than required by the EFC formula, to name some possible strategies.

At public institutions and private not-for-profit nondoctoral institutions, middle-income students and their families were in a better position than their low-income counterparts to cover their expenses. With access to student loans (and substantial grants at private not-for-profit nondoctoral institutions), these families, on average, generally appeared able to bring the net price into line with the EFC. At private not-for-profit doctoral institutions, however, despite grants and loans, there remained a relatively large unexplained amount of the net price to cover beyond the EFC.

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Data source: The NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

For technical information, see the complete report:

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What Colleges Contribute: Institutional Aid to Full-Time Undergraduates Attending 4-Year Colleges and Universities

Laura Horn and Katharin Peter

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Postsecondary Student Aid Study (NPSAS) and the Beginning Postsecondary Students Longitudinal Study (BPS).

Introduction

Many colleges and universities, both public and private, provide grant aid to undergraduates to help them pay for all or part of the tuition and fees charged by the institution. This practice, often referred to as "tuition discounting," has grown rapidly in recent years (Redd 2000; Cunningham et al. 2001; Hubbell and Lapovsky 2002). Depending on the type and selectivity of the institution, institutional aid is awarded for different reasons. Some institutions aim to promote access to low-income and otherwise disadvantaged students, others use institutional aid to increase the enrollment of meritorious students, and still others use it to increase tuition revenues (Allan 1999; Redd 2000). Many institutions are trying to accomplish more than one of these goals simultaneously (Redd 2000). Through the packaging of need-based and merit-based aid, different institutions use different strategies. For example, a need-within-merit strategy uses merit criteria, but prioritizes the recipients on the basis of need, whereas a merit-within-need strategy awards aid on the basis of need, but prioritizes the recipients on the basis of merit.

This study provides information about recent trends in institutional aid receipt and then examines the relationship between such aid and the likelihood of recipients staying enrolled in the awarding institution relative to comparable unaided students. The trend analysis is based on data gathered from three administrations of the National Postsecondary Student Aid Study, conducted in 1992–93, 1995–96, and 1999–2000 (NPSAS:93, NPSAS:96, and NPSAS:2000), and the retention analysis is based on data from the first and second follow-ups to the 1995–96 Beginning Postsecondary Students Longitudinal Study (BPS:96/01). BPS followed a cohort of students who first enrolled in college in 1995–96 and were last surveyed in 2001, about 6 years after their initial enrollment. Only full-time students attending 4-year public and private not-for-profit institutions were included in these analyses.

Trends in Institutional Aid: 1992–93 to 1999–2000

Consistent with earlier studies reporting large increases in spending on institutional aid by 4-year colleges and universities (e.g., Cunningham et al. 2001), this study found that the percentage of full-time undergraduates in 4-year colleges and universities who received institutional aid increased over the last decade, both in the public and private not-for-profit sectors (figure A).[1] In 1992–93, 17 percent of undergraduates in public institutions received institutional aid, averaging about $2,200 (after adjusting for inflation to 1999 dollars). By 1999–2000, 23 percent received such aid, averaging about $2,700. In private not-for-profit institutions, 47 percent received institutional aid, averaging about $5,900 in 1992–93, while 58 percent did so in 1999–2000, averaging about $7,000.

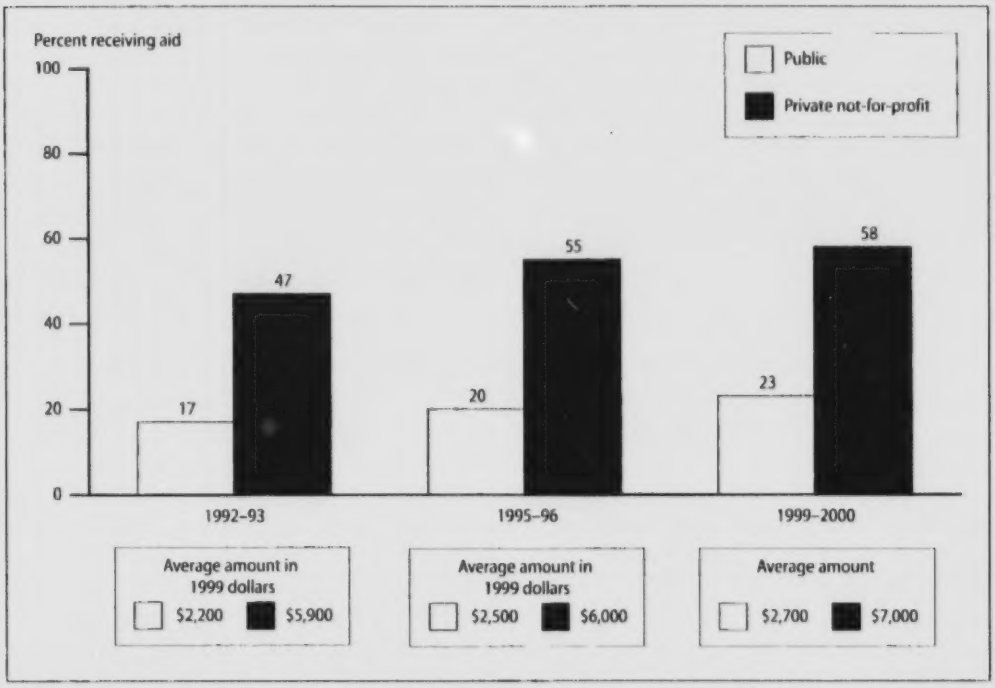
Over the same period, there was a notable increase in the percentage of undergraduates in the highest income quartile who received institutional aid, especially between 1995–96 and 1999–2000 (figure B). In private not-for-profit institutions, the percentage of undergraduates in the highest income quartile who received institutional aid increased from 41 to 51 percent between 1995–96 and 1999–2000. In public institutions, the percentage of high-income students receiving such aid increased from 13 to 18 percent. In contrast, in both the public and private sectors, no corresponding increase was observed during that time for those in the lowest income quartiles; and in private institutions, no increase was observed for middle-income students.

Much of the increase in institutional grant aid awarded between 1995–96 and 1999–2000 was in the form of aid based entirely on merit.[2] The percentage of full-time undergraduates who received merit aid increased from 7 to 10 percent in public institutions and from 21 to 29 percent in private not-for-profit institutions (figure C). In contrast, between 1992–93 and 1995–96, no differences in the percentages of undergraduates receiving merit aid were observed in either public institutions or private not-for-profit institutions.

[1] Institutional aid includes both need-based and merit-based aid.

[2] In addition to academic scholarships, merit aid includes athletic and other merit scholarships. Merit aid is included in the total aid awards previously discussed and shown in figure B.

Figure A. Percentage of full-time undergraduates enrolled in 4-year institutions who received institutional aid and among recipients, the average amount received in constant 1999 dollars, by institution control: 1992–93, 1995–96, and 1999–2000

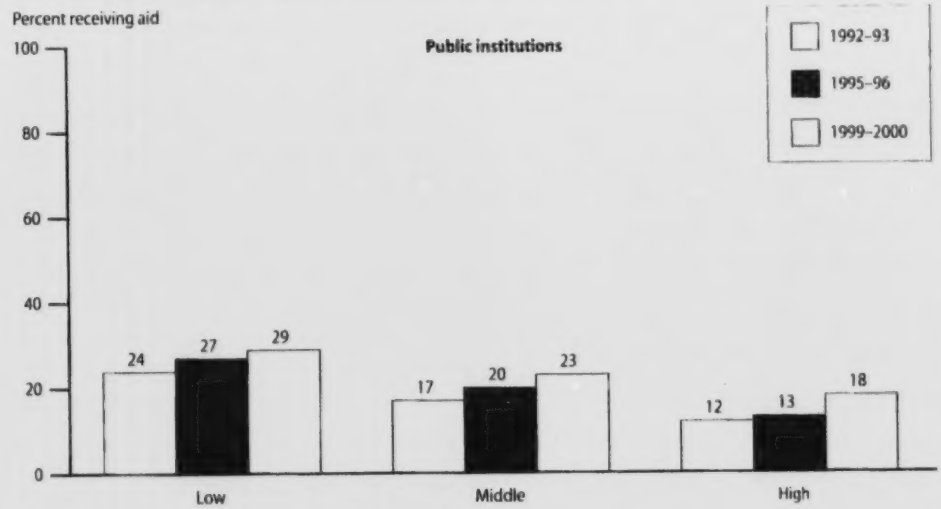


SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93, 1995–96, and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93, NPSAS:96, and NPSAS:2000).

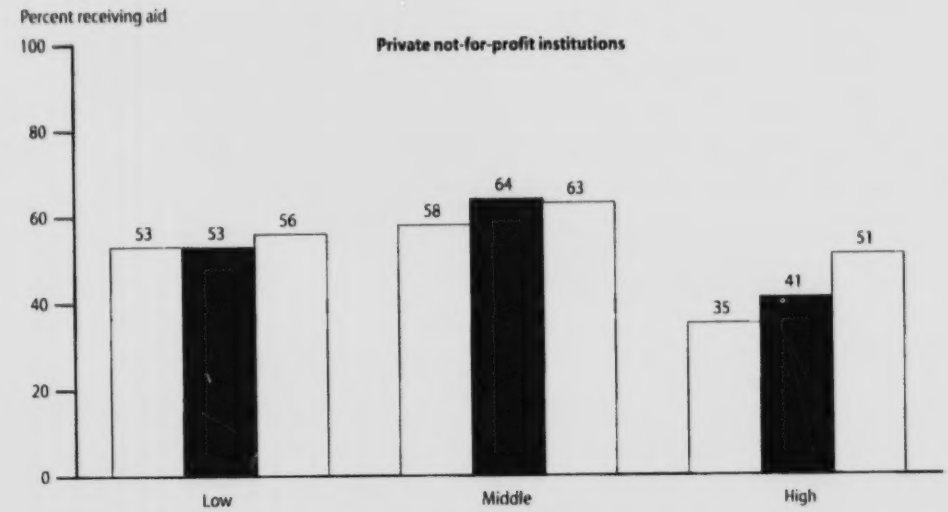
A relationship between the likelihood of receiving institutional merit aid and family income could not be detected in public institutions. That is, in all three NPSAS survey years, no differences were observed in the percentages of full-time undergraduates who received institutional merit aid among low-, middle-, or high-income students. In private not-for-profit institutions, on the other hand, differences by income were evident (figure D). In both 1992–93 and 1995–96, undergraduates in the middle-income quartiles were more likely than students in either the highest or lowest income quartiles to receive merit aid. By 1999–2000, however, no difference could be detected between the percentages of middle- and high-income students receiving merit aid (roughly 30 percent in each group did so), and students in both these income groups were more likely than low-income students (23 percent) to receive such aid. In other words, in private not-for-profit institutions, in the early to mid-1990s, middle-income students appeared to be favored over both high-income and low-income students in terms of receiving institutional merit aid. Institutions might award institutional aid in such a manner because low-income students are more eligible for need-based aid and high-income students have more discretionary income. However, by 1999–2000, no difference could be detected between those in the middle- and high-income quartiles, and students in both income groups were more likely to receive merit aid than their low-income peers.

As shown in figure E, need-based and merit-based institutional aid awards are often packaged together. In private not-for-profit institutions, where merit aid is most likely to be awarded, among full-time undergraduates, 44 percent of those who received need-based aid in 1999–2000 also received merit-based aid; among students who received merit-based aid, about one-third also received need-based aid. Taking into account the various need-within-merit and merit-within-need award strategies that institutions might use to increase institutional aid across income levels, if the trend in increased aid was aimed at all students, the notable increase in merit aid awards to high-income students in private not-for-profit institutions that occurred between 1995–96 and 1999–2000 would have been accompanied by a corresponding increase in total aid to low-income and most middle-income students, who are eligible for

Figure B. Percentage of full-time undergraduates enrolled in 4-year institutions who received institutional aid and among recipients, the average amount received in constant 1999 dollars, by income quartile: 1992–93, 1995–96, and 1999–2000



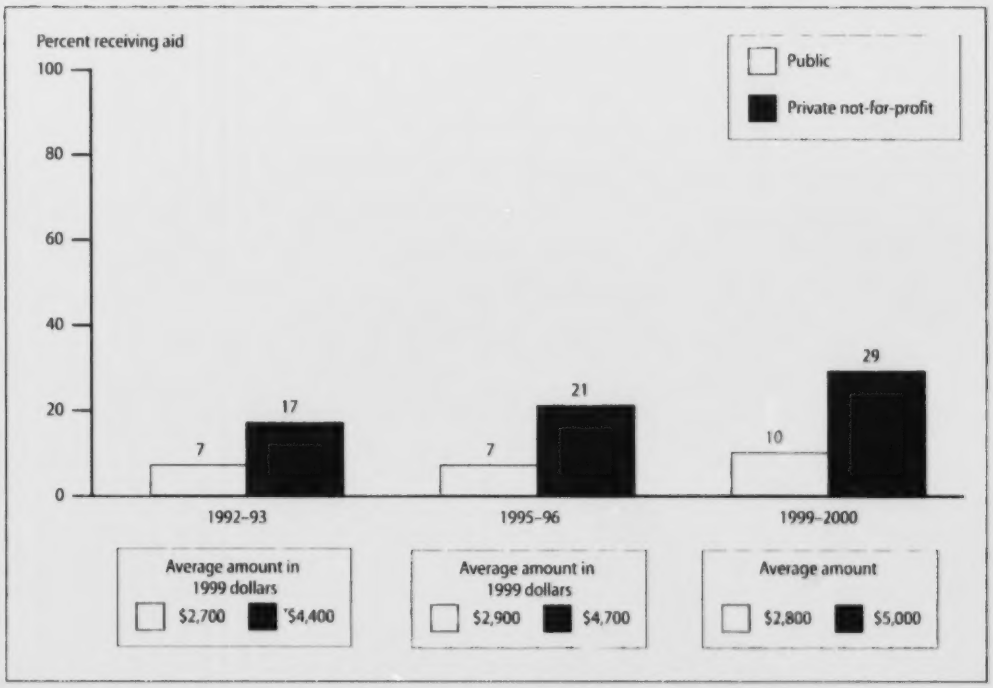
	Low	Middle	High
1992–93	$1,900	$2,500	$2,400
1995–96	2,500	2,400	2,700
1999–2000	2,300	2,700	3,200



	Low	Middle	High
1992–93	$5,500	$6,400	$5,500
1995–96	5,900	6,300	5,500
1999–2000	6,200	7,500	6,800

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93, 1995–96, and 1999–2000 National Postsecondary Student Aid Study (NPSAS: 93, NPSAS: 96, and NPSAS: 2000).

Figure C. Percentage of full-time undergraduates enrolled in 4-year institutions who received merit-based institutional aid and among recipients, the average amount received in constant 1999 dollars, by institution control: 1992–93, 1995–96, and 1999–2000



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93, 1995–96, and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93, NPSAS: 96, and NPSAS: 2000).

need-based aid. However, as is shown in figure B, this does not appear to be the case. Looking at total institutional aid, which includes both need and merit aid, no increase was observed in the percentage of either low- or middle-income students receiving aid between 1995–96 and 1999–2000, while awards to high-income students increased from 41 to 51 percent.

Academic Merit, Financial Need, and Institutional Grant Aid Among First-Year Students

Among undergraduates who enrolled in a 4-year college or university for the first time in 1995–96, about 38 percent of full-time students received institutional grant aid, including about one-quarter (24 percent) in public institutions and nearly two-thirds (62 percent) in private not-for-profit institutions.

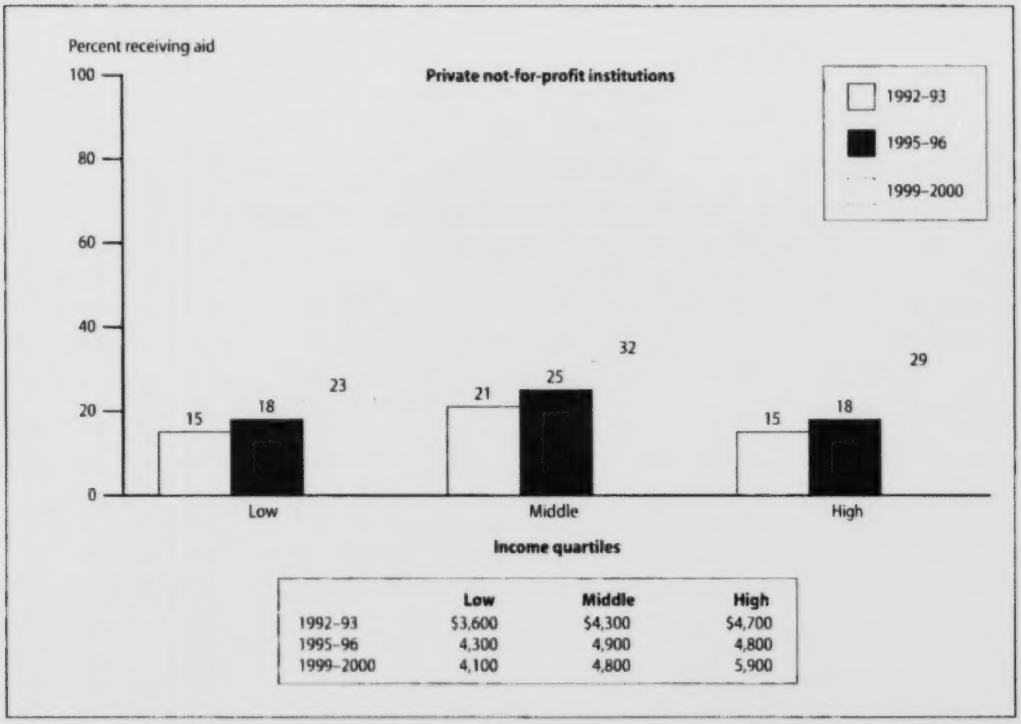
Institutional aid can be awarded on the basis of financial need, academic merit, or both need and merit. In addition, depending on the selectivity of the institution, institutional aid packages and amounts may vary. Therefore, in this analysis, students' high school academic merit,[3] their financial need,[4] and the selectivity of institutions[5] were taken into account when examining patterns of receipt of institutional grant aid.

[3]Levels of academic merit were based on an index incorporating three academic measures: college entrance exam scores, degree of high school curriculum difficulty, and high school grade-point average (GPA).

[4]Levels of financial need were based on the student budget reported by the institution (which includes the cost of tuition, books, and transportation, plus living expenses) after subtracting the expected family contribution (EFC) and government grant aid (both federal and state). This is the amount that institutions typically take into account before committing their own funds. This definition differs from the federal need definition, which is student budget minus EFC.

[5]Institution selectivity was based on the SAT or equivalent ACT scores of entering students. Institutions where at least 75 percent of entering students scored above 1000 on the SAT were considered "very selective." All others were identified as "less selective." (See appendix A in the full report for detailed descriptions of variables.)

Figure D. Percentage of full-time undergraduates enrolled in private not-for-profit 4-year institutions who received merit-based institutional aid and among recipients, the average amount received in constant 1999 dollars, by income quartile: 1992–93, 1995–96, and 1999–2000



	Low	Middle	High
1992–93	$3,600	$4,300	$4,700
1995–96	4,300	4,900	4,800
1999–2000	4,100	4,800	5,900

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93, 1995–96, and 1999–2000 National Postsecondary Student Aid Study (NPSAS: 93, NPSAS: 96, and NPSAS: 2000).

Institution selectivity

Many of the differences observed in institutional grant aid awards were related to the selectivity of the institution. For example, in both public and private not-for-profit institutions, the likelihood of awarding institutional aid in very selective institutions did not vary significantly with students' academic merit, whereas in less selective institutions, it did. In less selective institutions, as students' high school academic merit increased, so did their likelihood of receiving institutional grant aid.

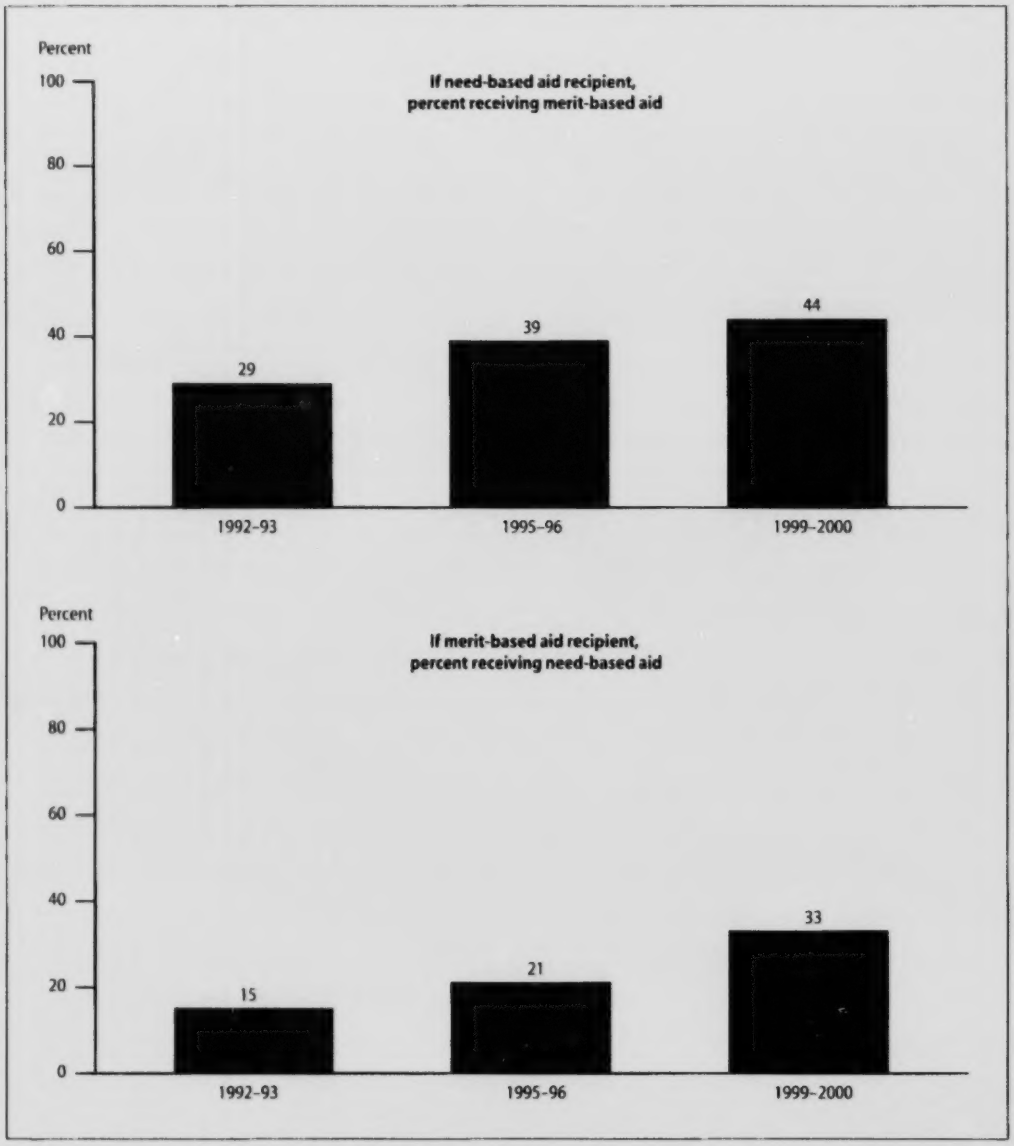
Differences by institution selectivity were also evident when examining the relationship between institutional aid awards and students' financial need, especially in the private sector. In very selective private not-for-profit institutions, as students' financial need rose, so did their likelihood of receiving institutional grant aid, from 21 percent of those with low financial need, to 59 percent with moderate need, to 66 percent with high need. In less selective institutions, on the other hand, while there was an association between institutional aid awards and financial need, fully one-half (51 percent) of students with low financial need received institutional grant aid, as did 71 percent of both those with moderate and high need.

Financial need

In both less selective and very selective public institutions, students' likelihood of receiving institutional grant aid was clearly associated with their financial need. Students with no financial need were less likely to receive institutional grant aid than their counterparts with high need. However, students with no financial need were more likely to receive institutional grant aid in less selective institutions than in very selective institutions, whereas those with high need were more likely to receive aid in very selective institutions.

When looking at students' financial need in relation to their high school academic merit, positive associations between

Figure E. **Among full-time undergraduates in private not-for-profit 4-year institutions who received institutional aid, the percentage of need-based aid recipients who also received merit-based aid and the percentage of merit-based aid recipients who also received need-based aid: 1992–93, 1995–96, and 1999–2000**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93, 1995–96, and 1999–2000 National Postsecondary Student Aid Study (NPSAS: 93, NPSAS: 96, and NPSAS: 2000).

students' financial need and the likelihood of receiving institutional aid awards remained for those who had achieved no higher than moderate levels of high school academic merit. This was observed for all institution types, including less selective private not-for-profit institutions: at such institutions, among those who had achieved moderate levels of academic merit, 69 percent with high need received institutional grant aid, compared with 47 percent with low need. However, as discussed below, for students who had achieved high levels of academic merit, whether or not they received institutional grant aid in less selective institutions did not vary significantly with their financial need.

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Students with high academic merit

As shown in figures F and G, students enrolled in less selective institutions who had achieved high academic merit in high school were more likely to receive institutional grant aid than their high-merit counterparts in very selective institutions. This was observed for both public institutions (52 vs. 27 percent) (figure F) and private not-for-profit institutions (87 vs. 51 percent) (figure G). However, in less selective institutions, no association could be detected between the likelihood of high-merit students receiving institutional grant aid and their financial need.[6] In private not-for profit less selective institutions, for example, roughly 9 in 10 high-merit students received institutional grant aid regardless of their financial need (figure G). In very selective institutions, on the other hand, high-merit students with high financial need were more likely to receive institutional aid than their counterparts with low (or no) need.

For high-merit students who received institutional grant aid, the average amount received as a percentage of tuition varied by institution selectivity in private not-for-profit institutions (figure H): those in very selective institutions received about 58 percent of their tuition amounts, compared with 46 percent in less selective institutions. However, in the same sector, only in very selective institutions did the amount of institutional aid received vary by aid recipients' financial need. Specifically, in very selective institutions, high-merit recipients with high financial need received enough institutional grant aid to pay for about two-thirds of their tuition, compared with about one-half of tuition for high-merit recipients with moderate or low need. In less selective private not-for-profit institutions, on the other hand, no difference in the average amounts received by high-merit recipients could be detected among students in terms of their financial need.[7]

Tuition in public institutions is typically much lower than it is in comparable private not-for-profit institutions. Due to large variations in the amounts received, in particular for students with no financial need, statistical differences in aid amounts could be detected only for high-merit aid recipients in less selective public institutions. Among such students, those with high need received enough aid to pay 96 percent of their tuition, compared with recipients with moderate need, who received only enough aid to pay 64 percent of their tuition.

Institutional Grant Aid and Retention at Awarding Institution

How did the award of institutional grant aid relate to students' likelihood of staying enrolled in the awarding institution? The analysis addressed this question at two different points in time, 1 year and 6 years after students first enrolled.

One year later

Some groups of students who received institutional grant aid in their first year were more likely than their unaided counterparts to re-enroll in their second year and less likely to transfer to another institution. But findings differed by sector and selectivity of institutions. In particular, differences in 1-year retention rates were observed for middle-merit students in less selective institutions, both public and private not-for-profit. Specifically, among middle-merit students, 87 percent of aided students in less selective public institutions returned in their second year, compared with 75 percent of unaided students; similarly, in less selective private not-for-profit institutions, 87 percent of aided students returned, compared with 70 percent of unaided students. A difference was also observed for high-merit students in very selective public institutions, where 97 percent of aided students returned, compared with 90 percent of unaided students. Due in part to small sample sizes and uniformly high retention rates, 1-year retention rate differences could not be detected for any merit group in very selective private not-for-profit institutions.[8]

Six years later

Six years after their first enrollment, differences between aided and unaided students were only observed in public institutions. Students who had been awarded institutional grant aid in their first year were more likely than their unaided counterparts to have either attained a degree from or still be enrolled at the awarding institution.[9] In less selective public institutions, this trend was found across all merit groups, while in very selective public institutions, a

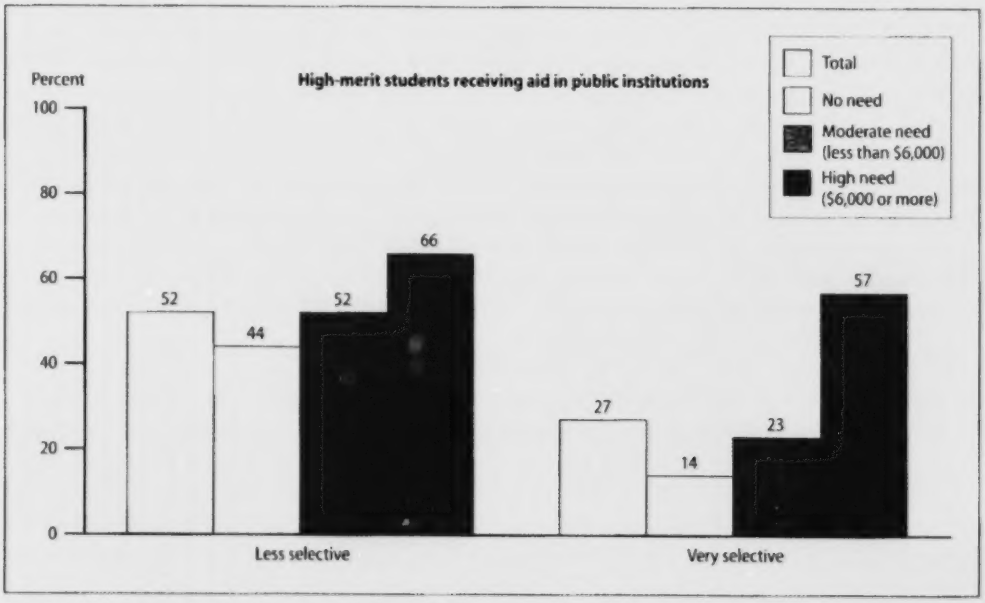
[6] In public less selective institutions, the difference between the percentages of students with no need and high need who received institutional grant aid appeared to be different (44 vs. 66 percent), but because of large standard errors for high-merit students with high need, there was not enough statistical evidence to confirm the difference.

[7] The aid amounts for high-merit students with high need and low need appear to be different (51 vs. 41 percent of tuition), but there was not enough statistical evidence to confirm the difference.

[8] For example, 88 percent of high-merit aided students in very selective private not-for-profit institutions were still enrolled, as were 81 percent of comparable unaided students, a difference that is not statistically significant.

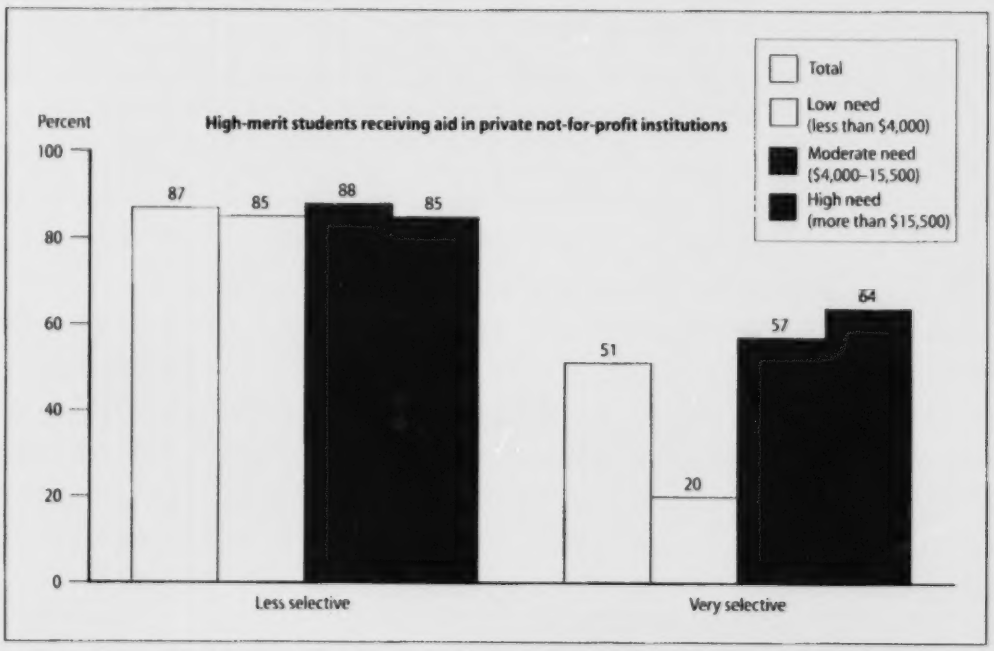
[9] Institutional grant aid receipt was only known for the first year of enrollment. The relationship discussed here is whether students received institutional aid in their first year and then persisted in the awarding institution for 6 years.

Figure F. Among 1995–96 beginning full-time students enrolled in public 4-year institutions who had achieved high academic merit in high school, the percentage receiving institutional grant aid, by institution selectivity and financial need



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/98 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:96/98).

Figure G. Among 1995–96 beginning full-time students enrolled in private not-for-profit 4-year institutions who had achieved high academic merit in high school, the percentage receiving institutional grant aid, by institution selectivity and financial need



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/98 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:96/98).

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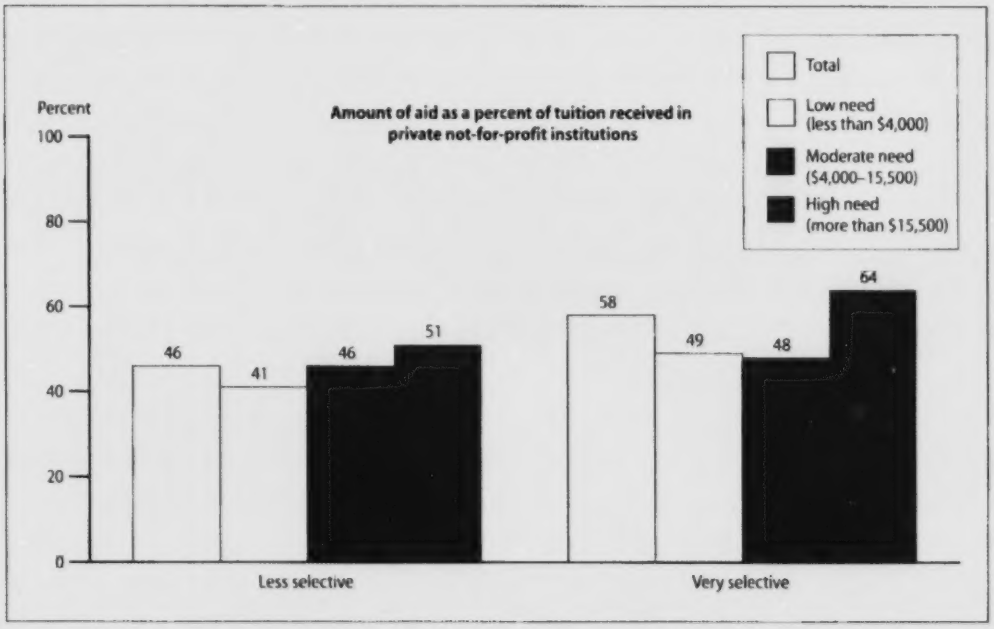
Figure H. Among 1995–96 beginning full-time students enrolled in private not-for-profit 4-year institutions who had achieved high academic merit in high school and had received institutional grant aid, the average amount received as a percent of tuition, by institution selectivity and financial need



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/98 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:96/98).

difference in retention between aided and unaided students was detected only for high-merit students (88 percent of aided students maintained their enrollment vs. 78 percent of unaided students).

In private not-for-profit institutions, whether they were less selective or very selective institutions, no differences could be detected between the 6-year retention rates of students who received institutional grant aid in their first year and those who did not.

These results held in a subsequent multivariate analysis after taking into account students' academic merit and financial need, the selectivity of institutions, and a number of other variables related to retention.[10] Full-time undergraduates who received institutional grant aid in public institutions were more likely than their unaided counterparts to earn a degree from or still be enrolled at the awarding institution 6 years after they had first enrolled. However, the same pattern was not observed for those enrolled in private not-for-profit institutions. While it appears as though receiving high amounts of institutional grant aid in private not-for-profit institutions (covering 75 percent or more of tuition) was associated with higher retention, there was not enough statistical evidence to confirm a difference once the multivariate analysis was applied.

Conclusions

This study found that the percentage of full-time students receiving institutional grant aid increased measurably between the early and late 1990s. Increases in aid were especially apparent for students in the highest income quartile, and much of the increase was awarded in the form of merit aid.

The study also found that students who achieved high academic merit in high school were more likely to receive institutional grant aid if they attended less selective rather

[10]While the analysis controlled for observable student characteristics that might be related to persistence, it is possible that unobservable characteristics are related both to the receipt of institutional aid and persistence. For example, an institution might be more likely to give aid to students it perceives as more likely to succeed over students with comparable merit and need.

than very selective institutions (in both the public and private not-for-profit sectors). However, an association between high-merit students receiving such aid and their financial need was not readily apparent in less selective private not-for-profit institutions, whereas in very selective institutions (both public and private not-for-profit), the likelihood of high-merit students receiving institutional grant aid increased with their financial need.

There was evidence that receiving institutional grant aid as freshmen was related to higher 1-year retention rates for certain groups of students, namely, those who had achieved moderate levels of academic merit and had enrolled in less selective institutions (both public and private not-for-profit), as well as those who had achieved high academic merit and enrolled in very selective public institutions. However, an association between institutional grant aid receipt in the first year and 6-year institutional retention (or degree attainment) was only evident among students in public institutions.

Taken together, the results are consistent with those of other studies reporting higher spending by 4-year colleges and universities on institutional aid (e.g., Cunningham et al. 2001), especially by less selective private institutions (Redd 2000; and Hubbell and Lapovsky 2002). Also, as discussed in Duffy and Goldberg (1998), the findings revealed that in the late 1990s, the percentage of high-income students receiving institutional grant aid (in particular, merit aid) increased, as did the average amount they received. This study could not address whether institutional grant aid awards had increased the enrollment of the types of students that institutions sought. However, the findings did indicate that in private not-for-profit institutions, where most institutional grant aid is awarded, no measurable association could be detected between students' receipt of institutional grant aid as freshmen and their graduating from the awarding institution (compared to unaided students), once other factors such as students' academic merit, students' financial need, and institutional selectivity were taken into consideration.

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Data sources: The NCES 1992–93, 1995–96, and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93, NPSAS:96, and NPSAS:2000); and the 1996/98 and 1996/2001 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:96/98) and "Second Follow-up" (BPS:96/01).

For technical information, see the complete report:

Horn, L., and Peter, K. (2003). *What Colleges Contribute: Institutional Aid to Full-Time Undergraduates Attending 4-Year Colleges and Universities* (NCES 2003–157).

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To obtain the complete report (NCES 2003–157), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Invited Commentary: Federal Efforts to Help Low-Income Students Pay for College

Sally L. Stroup, Assistant Secretary of Postsecondary Education, U.S. Department of Education

This commentary represents the opinions of the author and does not necessarily reflect the views of the National Center for Education Statistics.

How *do* low-income families pay for postsecondary education? This is a critical question to answer as we look to the upcoming reauthorization of the Higher Education Act (HEA). Through the HEA, the U.S. Department of Education will deliver or cause to be delivered more than $60 billion in financial aid—primarily to low-income students—during the 2003–04 academic year.

The National Center for Education Statistics (NCES) report *How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999–2000* highlights the significant role that federal student financial aid programs play as the primary mode of support to low-income students enrolled in a public 2-year, public 4-year, or private not-for-profit 4-year college or university. It also highlights the fact that middle-income students' reliance on financial aid is greatest when they are attending 4-year institutions.

The report documents the fact that low-income students attending public 2-year colleges in 1999–2000 were able to meet their education expenses by combining federal grants with their earnings from work. Typically, they were also aided by their families by living at home while enrolled, and they borrowed little. Low-income students attending public 4-year colleges and universities, particularly those attending doctoral degree-granting universities, were likely to receive more grant support, including institutional grants, and to spend no more out-of-pocket than their peers at public 2-year colleges. They were, however, more likely to take out subsidized Stafford loans.

Three significant changes have occurred since 1999–2000:

- The federal Pell Grant maximum award increased from $3,125 for the 1999–2000 academic year to $4,000 for the 2002–03 academic year—an increase of nearly 30 percent in just 4 years. This increase continued the trend begun in 1995–96.
- The average tuition and fees charged by colleges and universities increased dramatically between 1999–2000 and 2002–03. The average tuition and fees charged by public 4-year colleges and universities increased by $720, or 22 percent, while the average tuition and fees charged by private 4-year colleges and universities increased by $2,800, or 18 percent. These increases offset the gains achieved by the federal investment of $4.4 billion in the Pell Grant Program for 2002–03—a 60 percent increase since 1999–2000.
- Student loan interest rates have fallen to historic lows. Students leaving postsecondary education in the summer of 2000 were looking at entering repayment with interest rates of 7.72 percent on their subsidized Stafford loans. Students leaving postsecondary education today—in the summer of 2003—are facing interest rates of 3.42 percent. This reduction in the student loan interest rate will result in monthly savings of more than $20 on $10,000 in debt and 10-year savings of nearly $2,600.

Over the last several years, the federal government has been doing its part to reduce the economic barriers to low-income individuals enrolling in postsecondary education by substantially increasing funds for the Pell Grant Program and supporting policies that have reduced student loan costs to borrowers. However, despite these strong efforts, significant increases in tuition and fees continue to hamper the federal government's attempts to increase access to postsecondary education for many students from low-income families.

Invited Commentary: The Gap Between College Costs and Student Resources

Kenneth E. Redd, Director of Research and Policy Analysis, National Association of Student Financial Aid Administrators

This commentary represents the opinions of the author and does not necessarily reflect the views of the National Center for Education Statistics.

One of the biggest concerns for many families is how they are going to pay their children's college expenses. In academic year 2002–03, the average total price for full-time undergraduates to attend 4-year institutions—including tuition, fees, room, board, books, supplies, and other education expenses, as estimated by the institutions—was more than $12,800 at public institutions and almost $28,000 at private institutions (College Board 2003a). Over the past decade, inflation-adjusted tuition prices at public and private 4-year colleges and universities jumped nearly 40 percent, while the median income of families with a head of household 45 to 54 years old (those families most likely to have traditional college-age children) rose only 8 percent (College Board 2003b). Such price increases have made it much more difficult for families from nearly all income levels to pay for college. Researchers have, for many years, wondered how low- and middle-income families manage to put together enough funds from financial aid and their own resources to pay for their children's postsecondary education. A recent report from the National Center for Education Statistics (NCES), *How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999–2000*, provides much-needed information on the resources students and their families use to bear the burden of college costs.

As the report explains, paying for college is considered to be primarily a family responsibility, with students and families from all income backgrounds expected to contribute at least some portion of their resources toward postsecondary expenses. However, with the advent of federal student financial aid, as authorized by the Higher Education Act of 1965, the federal government committed itself to at least partially assisting students with these costs. Since then, federal and state governments, along with the postsecondary institutions themselves, have distributed billions of dollars in grants, loans, and work-study awards to help students pay college expenses. In 1999–2000 alone, these entities awarded nearly $66 billion in direct financial assistance to students (College Board 2003b). Unfortunately, as the NCES report shows, these funds often are not enough to offset the total cost of education for many low- and middle-income undergraduates, and students and their families often must make up the difference through work, private credit, or other means.

Access Versus Affordability: A Changing Role for Financial Aid

Originally, financial aid was designed to provide educational access to low-income families—those families who can least afford to pay college costs. As such, most aid was distributed to students based on their demonstrated financial need (Heller and Rasmussen 2002). But as college prices have risen, financial aid has taken on the role of preserving college affordability for the middle class. To deliver more aid to middle-income families, policymakers have instituted aid and other programs based on academic merit and other criteria rather than need. Implied in the NCES report, but not directly stated, is the inherent tension between these two goals: As more public dollars are devoted to the preservation of affordability for the middle class, is less funding available to support college access for the poor?

Recent trends suggest that aid to the middle class has become increasingly important. During the 1990s, appropriations for the Pell Grant Program—the largest federal program that provides grant assistance to financially needy students at postsecondary institutions—rose only 23 percent (College Board 2001). At the same time, institutional aid (which is often provided to middle-income students through merit-based and other "non-need" scholarships) grew 84 percent (College Board 2001; Davis 2003; Heller 2001). Similarly, from 1990 to 2000, state spending for merit scholarships tripled, while need-based state aid grew 62 percent (NASSGAP 2001).

Despite these trends, *How Families of Low- and Middle-Income Undergraduates Pay for College* makes a convincing case that low-income students continue to receive the lion's share of aid and that college access remains the primary goal of financial aid. The authors use data from the NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000) to show the college financing experiences of full-time, full-year, dependent undergraduates who attended public 2-year, public 4-year, and

private not-for-profit 4-year institutions during the 1999–2000 academic year. These students constitute just one-quarter of all undergraduates; the aid and other resources used by the vast majority of students (such as part-time and other "nontraditional" undergraduates) are not discussed. However, as the authors suggest, much of the policy debate on college financing focuses on full-time undergraduates; it is therefore important that their financial aid and other resources are better understood by policymakers.

At public 2-year institutions, 78 percent of low-income undergraduates (those from families with less than $30,000 in adjusted gross income) received financial assistance in 1999–2000, and their average aid amount was $3,000. This compares with 40 percent of middle-income undergraduates (those with a family income between $45,000 and $74,999), who received an average of $1,000. Grants accounted for approximately 80 percent of the total aid for low-income students, compared with 50 percent for students from middle-income families.

At private not-for-profit doctoral and liberal arts colleges, 90 percent of low-income undergraduates received aid, compared with 84 percent of middle-income undergraduates. The average award for low-income students was $18,900, of which about two-thirds came from grants. The average aid amount for middle-income students was $14,700, with about 60 percent coming from grants.

Unmet Financial Need

Despite these large awards, the report also indicates that for many low- and middle-income families, financial aid awards are often not large enough to meet students' full demonstrated financial need. Financial need is defined as the difference between students' total cost of education and the amount they and their families are expected to contribute toward this cost—more commonly referred to as the expected family contribution (EFC). Unmet, or remaining, financial need is the difference between the students' demonstrated financial need and the amount they receive in financial aid.

Unmet need appears to be a serious problem, particularly for low-income undergraduates. In 1999–2000, the proportion of low-income students with unmet need ranged from 74 percent at public doctoral institutions to 92 percent at public 2-year institutions, and their average amount of unmet need ranged from $4,000 at public 4-year non-doctoral schools to $9,300 at private not-for-profit doctoral and liberal arts colleges. Among middle-income students, the proportion with unmet need ranged from 38 percent at public 2-year institutions to 65 percent at private not-for-profit doctoral and liberal arts colleges, with average remaining need ranging from $2,100 at public 2-year institutions to $10,700 at private not-for-profit doctoral and liberal arts colleges.

However, it is not clear what effect these high unmet need levels have on students, particularly given that the report covers only students who actually enrolled in higher education. No information is available on the number of prospective students who could not enroll due to remaining need. The report also does not discuss unmet need's influence on students' college choices. Other research (Advisory Committee on Student Financial Assistance 2001) has suggested that unmet need limits low-income students' ability to choose public and private 4-year colleges.

Another weakness in the NCES report is that, while it provides some clues, it leaves largely unanswered a number of questions regarding unmet need: If unmet need is so large, how can low-income students afford to attend college? Does unmet need occur because aid amounts are too low, or because budgeted amounts for living and other "indirect" education costs are too high? Can unmet need be attributed to the financial aid system's failure to estimate accurately students' and families' ability to pay college costs? This last question is especially important given a number of changes that have been made in the methodology used to determine the EFC. Under the Higher Education Amendments of 1992, the aid formula was altered so that parents were allowed to exclude home equity from the EFC calculations. The law also lowered the proportion of income and assets that parents were required to contribute toward their children's college expenses (Redd 1999). These changes essentially lowered the EFC amounts for some families at a time when college costs were rising, thus increasing financial need. Therefore, rather than truly indicating families' inability to pay college costs, higher unmet need amounts might result from the changes in the aid formula. This issue is given relatively little attention in the NCES report. Nonetheless, the report expands our knowledge of this important subject and brings up an issue that warrants further research.

After Financial Aid: Students' Use of Other Resources

Given the high levels of unmet need, what other resources do students and families rely on to pay college costs? There

are a number of possible strategies students can use to fill their remaining need. *How Families of Low- and Middle-Income Undergraduates Pay for College* provides valuable new information on three of these methods: working while enrolled, using credit cards, and relying on parents for additional support.

Much prior research exists on students working. King (2002), for example, has found that nearly all undergraduates work at least part time while enrolled, and many work 20 hours per week or more. The NCES report takes this research one step further by showing that working is not influenced by income—that is, middle-income students were just as likely as their lower-income classmates to work similar hours and to have similar employment earnings, even after adjusting for institution type. King (2002) has also shown that working more than 20 hours per week negatively affects students' academic performance, and the NCES report confirms this finding as well.

Most students at all income levels also had credit cards, and while it is not clear whether the credit cards were used to pay education expenses, the results indicate that credit card debt has caused some financial stress for low- and middle-income students. As might be expected, low-income students were less likely than their middle-income peers to receive help from parents with tuition and other expenses. However, for students from both income groups, it appears that employment and credit cards play a much larger role in providing added support than additional parental contributions.

Conclusion: A Broken Financial Aid System?

How Families of Low- and Middle-Income Undergraduates Pay for College concludes by comparing students' net price of college (the amount families have to pay after financial aid is deducted from total price of attendance) and the EFC. For many students, there is a sizable gap between net price and EFC. At private not-for-profit doctoral and liberal arts colleges, for instance, the average net price for low-income undergraduates was $9,100, compared with $14,600 for middle-income undergraduates. The EFC—$1,400 for low-income undergraduates and $8,600 for their middle-income peers—fell far short of covering the net price. In fact, even after including employment earnings as well as the EFC, low-income students at these institutions still had an average net price gap of $4,900, and middle-income students had a gap of $3,300. How did these students manage to cover these expenses? Unfortunately, while the report mentions some possibilities (e.g., changes in living arrangements, receiving funds from family members other than parents), NPSAS:2000 does not provide enough information to answer this question completely. Certainly, this is an area that cries out for additional research.

The report implies, but does not ask directly, the following questions: Is the financial aid system broken? If so, what is the solution for fixing it? Clearly, it is a system that leaves many students from low- and middle-income backgrounds without enough funding to cover the full price of attending college. The burden of covering the net price gap appears to rest largely on the shoulders of students, who are compelled to work or use credit cards. As a result, paying for college appears to be increasingly a responsibility of students rather than government or parents. *How Families of Low- and Middle-Income Undergraduates Pay for College* takes us a long way toward understanding these complex issues. It also demonstrates that there are no easy solutions to these problems.

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The Nation's Report Card: Reading 2002

Wendy S. Grigg, Mary C. Daane, Ying Jin, and Jay R. Campbell

This article was excerpted from* The Nation's Report Card: Reading Highlights 2002, *a tabloid-style publication that summarizes the complete report. The sample survey data are from the National Assessment of Educational Progress (NAEP) 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

Introduction

The National Assessment of Educational Progress (NAEP) is an ongoing nationally representative sample survey of student achievement in core subject areas. Authorized by Congress, administered by the National Center for Education Statistics (NCES) within the U.S. Department of Education's Institute of Education Sciences, and overseen by the National Assessment Governing Board (NAGB), NAEP regularly reports to the public on the educational progress of fourth-, eighth, and twelfth-grade students.

This report presents the results of the NAEP 2002 Reading Assessment for the nation at grades 4, 8, and 12 and for participating states and other jurisdictions at grades 4 and 8. The national results reflect the performance of students attending both public and nonpublic schools, while the

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state/jurisdiction results reflect only the performance of students attending public schools.

Comparisons are made to results from previous years. In addition to the 2002 results, national results are reported from the 1992, 1994, 1998, and 2000 (fourth-grade only) assessments. State/jurisdiction results are also reported from the 1992, 1994, and 1998 assessments at grade 4 and from the 1998 assessment at grade 8.

Accommodations and comparisons

The results presented in the figures and tables throughout the report distinguish between two different reporting samples that reflect a change in administration procedures. The more recent results are based on administration procedures in which testing accommodations were permitted for students with disabilities and limited-English-proficient students. Prior to 1996, accommodations were not permitted in NAEP assessments. Beginning with the 2002 assessment, NAEP has been using only one set of administration procedures—permitting accommodations. Comparisons between results from 2002 and those from assessment years in which both types of administration procedures were used (in 1998 at all three grades and again in 2000 at the fourth grade only) are discussed based on the results when accommodations were permitted, even though significant differences in results when accommodations were not permitted may be noted in the figures and tables. Additional information about the change in administration procedures can be found in the full report, *The Nation's Report Card: Reading 2002*.

NAEP reading framework

The NAEP reading framework, which defines the content for the 2002 assessment, was developed through a comprehensive national process and adopted by NAGB. The reading framework is organized along two dimensions, the *context* for reading and the *aspect* of reading. The context dimension is divided into three areas that characterize the purposes for reading: reading for literary experience, reading for information, and reading to perform a task. All three contexts are assessed at grades 8 and 12, but reading to perform a task is not assessed at grade 4. The aspects of reading, which define the types of comprehension questions used in the assessments, include forming a general understanding, developing interpretation, making reader/text connections, and examining content and structure. The complete framework is available on the NAGB web site at http://www.nagb.org.

Scale scores and achievement levels

Assessment results are described in terms of students' average reading score on a 0–500 scale and in terms of the percentage of students attaining each of three achievement levels: *Basic*, *Proficient*, and *Advanced*.

- *Basic* denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient* represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *Advanced* signifies superior performance.

Achievement levels are performance standards set by NAGB that provide a context for interpreting student performance on NAEP. These performance standards, based on recommendations from broadly representative panels of educators and members of the public, are used to report what students should know and be able to do at the *Basic*, *Proficient*, and *Advanced* levels of performance in each subject area and at each grade assessed.

As provided by law, NCES, upon review of a congressionally mandated evaluation of NAEP, has determined that the achievement levels are to be used on a trial basis and should be interpreted and used with caution. However, both NCES and NAGB believe that these performance standards are useful for understanding trends in student achievement. NAEP achievement levels have been widely used by national and state officials. Detailed descriptions of the NAEP reading achievement levels can be found on the NAGB web site at http://www.nagb.org/pubs/readingbook.pdf.

In addition to providing average scores and achievement-level performance in reading for the nation and for states and other jurisdictions, the report provides results for subgroups of students defined by various background characteristics. Following is a summary of major findings.

Overall Reading Results for the Nation

National results are for students attending both public and nonpublic schools.

2002 average score trends differ by grade

The fourth-grade average score in 2002 was higher than in 1994, 1998, and 2000 (figure A), but was not found to be significantly different from 1992. Among eighth-graders, the average score in 2002 was higher than in 1992 or 1994. The twelfth-grade average score in 2002 was lower than in 1992 and 1998.

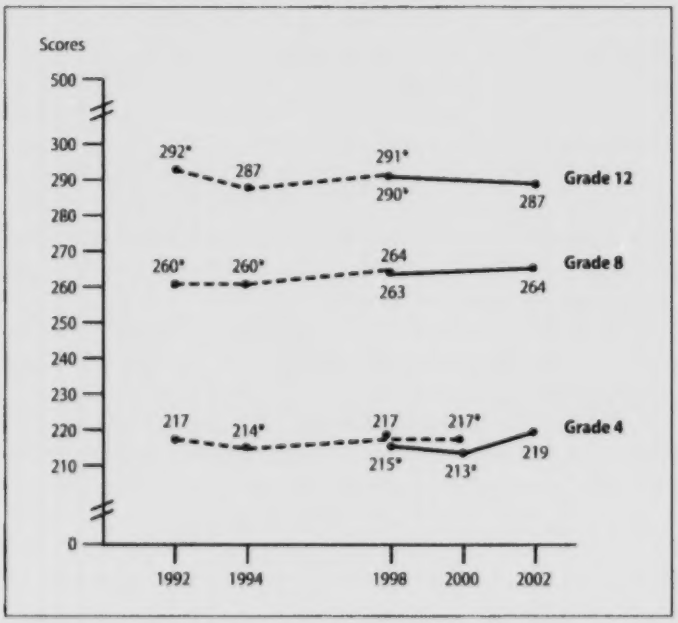
2002 achievement levels show gains and losses

As shown in table A, the percentage of fourth-graders at or above *Basic* was higher in 2002 than in 1994, 1998, and 2000 but was not found to be significantly different from 1992. The percentage of fourth-graders at or above *Proficient*—the achievement level identified by NAGB as the standard all students should reach—was higher in 2002 than in 1992 and 1998. The percentage of eighth-graders at or above *Basic* was higher in 2002 than in all previous assessment years. The percentage of eighth-graders at or above *Proficient* was higher in 2002 than in 1992 and 1994. The percentages of twelfth-graders at or above *Basic* and *Proficient* fell below levels seen in 1992 and 1998.

Trends in percentiles differ by grade level

Looking at changes in scores for students at higher, middle, and lower performance levels gives a more complete picture of student progress. An examination of scores at different percentiles on the 0–500 reading scale at each grade indicates whether or not the changes seen in the national average score results are reflected in the performance of lower-, middle-, and higher-performing students. The percentile indicates the percentage of students whose scores fell below a particular score.

Figure A. Average reading scale scores, grades 4, 8, and 12: 1992–2002



*Significantly different from 2002.

- - - Accommodations not permitted.

—●— Accommodations permitted.

NOTE: In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. For more details, see appendix A of the full report, *The Nation's Report Card: Reading 2002*.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments. (Previously published on p. 1 of *The Nation's Report Card: Reading Highlights 2002*.)

Table A. Percentage of students, by reading achievement level, grades 4, 8, and 12: 1992–2002

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4							
Accommodations not permitted	1992	38	34	22*	6	62	29*
	1994	40*	31*	22*	7	60*	30
	1998	38	32	24	7	62	31
	2000	37	31	24	8	63	32
Accommodations permitted	1998	40*	30*	22*	7	60*	29*
	2000	41*	30*	23	7	59*	29
	2002	36	32	24	7	64	31
Grade 8							
Accommodations not permitted	1992	31*	40*	26*	3	69*	29*
	1994	30*	40*	27*	3	70*	30*
	1998	26	41*	31	3	74	33
Accommodations permitted	1998	27*	41	30	3	73*	32
	2002	25	43	30	3	75	33
Grade 12							
Accommodations not permitted	1992	20*	39	36*	4	80*	40*
	1994	25	38	32	4	75	36
	1998	23*	37	35*	6*	77*	40*
Accommodations permitted	1998	24*	36	35*	6*	76*	40*
	2002	26	38	31	5	74	36

*Significantly different from 2002.

NOTE: Percentages within each reading achievement-level range may not add to 100, or to the exact percentages at or above achievement levels, because of rounding. In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A of the full report, *The Nation's Report Card: Reading 2002*, for more details.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments. (Previously published on p. 2 of the complete report from which this article is excerpted.)

At grade 4, scores at the 10th, 25th, and 50th percentiles were higher in 2002 than in 1998 and 2000 but were not found to be significantly different from 1992 (figure B). The score at the 75th percentile was higher than in 1992.

At grade 8, scores were higher in 2002 than in 1992 at all but the 90th percentile. However, only scores for lower-performing students at the 10th and 25th percentiles were higher in 2002 than in 1998.

At grade 12, the decline in performance since 1992 was evident across most of the score distribution (at the 10th, 25th, 50th, and 75th percentiles). Performance declined between 1998 and 2002 at the 90th percentile.

Fourth- and Eighth-Grade Results for Participating States and Other Jurisdictions

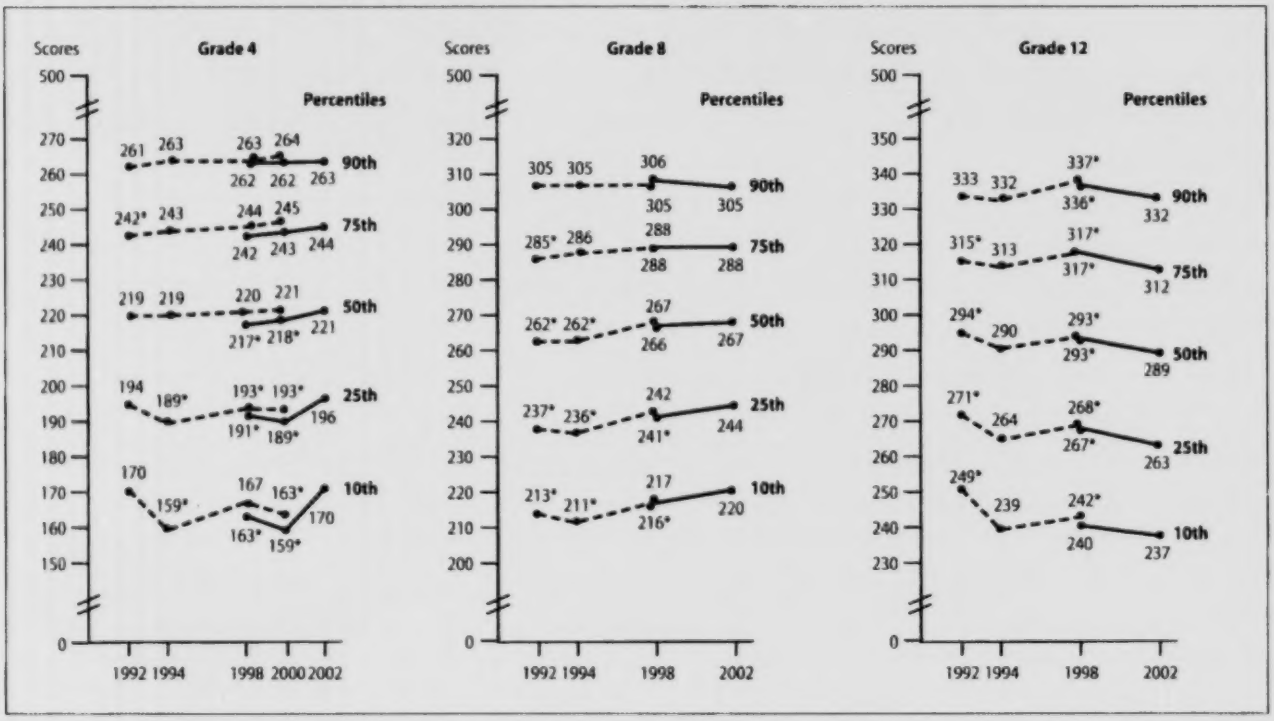
In addition to national results for students' reading performance, the 2002 assessment collected performance data for fourth- and eighth-graders who attended public schools in states and other jurisdictions that volunteered to participate. In 2002, 45 states and 5 other jurisdictions participated at grade 4, and 44 states and 6 other jurisdictions participated at grade 8. Two states at grade 4 and three states at grade 8 participated but did not meet minimum school participation guidelines for reporting their results in 2002.

While the national results presented in the previous sections reflect the performance of students in both public and nonpublic schools combined, results for jurisdictions are based on the performance of students attending public schools only. For purposes of comparison, the national performance results presented here are for public school students only.

Average score results

Among the 40 jurisdictions that participated in both the 1998 and 2002 fourth-grade reading assessments, 19 showed score increases in 2002 and only 1 showed a

Figure B. Reading scale-score percentiles, grades 4, 8, and 12: 1992–2002



*Significantly different from 2002.

- - - Accommodations not permitted.

——— Accommodations permitted.

NOTE: In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A of the full report, *The Nation's Report Card: Reading 2002*, for more details.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments. (Previously published on p. 3 of *The Nation's Report Card: Reading Highlights 2002*.)

decline. Among the 40 jurisdictions that participated in both 1992 and 2002, average reading scores in 2002 were higher in 15 jurisdictions and lower in 2 jurisdictions. At grade 8, 10 of the 37 jurisdictions that participated in both assessment years showed gains in 2002, and 5 showed declines.

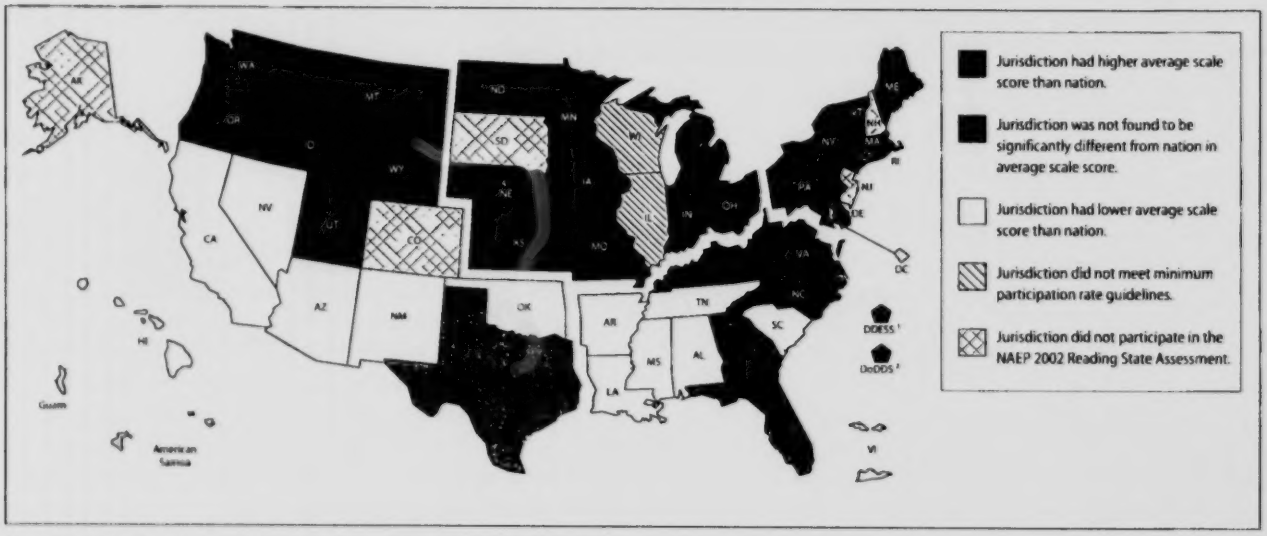
Figures C and D show how the performance of students in participating jurisdictions compares to the performance of students in the national public-school sample. Of the 48 jurisdictions that had their results reported in 2002 at grade 4, 26 had scores that were higher than the national average score, 7 had scores that were not found to be statistically different from the national average, and 15 had scores that were lower than the national average. Of the 47 jurisdictions that had results reported in 2002 at grade 8, 20 had scores that were higher than the national average score, 12 had scores that were not found to differ significantly from the national average, and 15 had scores that were lower than the national average.

Students performing at or above *Proficient* in reading

At grade 4, 19 jurisdictions had higher percentages of students at or above *Proficient* than the nation, 14 had percentages that were not found to be statistically different from the nation, and 13 had percentages that were lower than the nation. At grade 8, 16 jurisdictions had higher percentages of students at or above *Proficient* than the nation, 15 had percentages that were not found to be significantly different from the nation, and 16 had percentages that were lower than the nation.

The percentage of fourth-graders at or above *Proficient* increased from 1998 to 2002 in 11 jurisdictions and decreased in 1 jurisdiction. Since 1992, the percentage of fourth-graders at or above *Proficient* has increased in 17

Figure C. Comparison of state and national public school average reading scores, grade 4: 2002

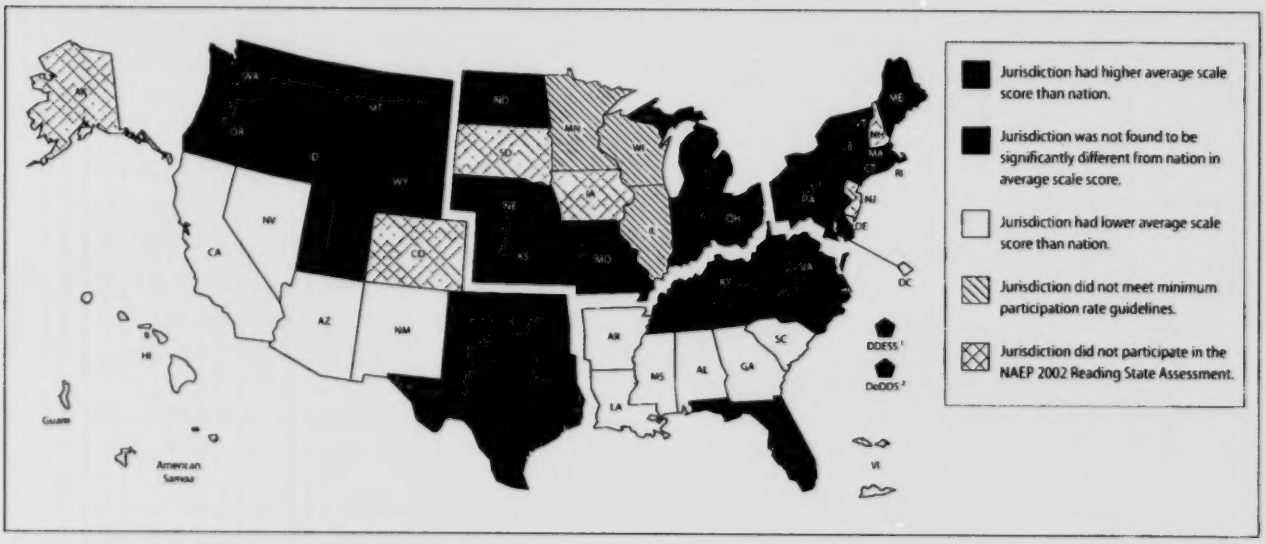

Jurisdiction had higher average scale score than nation.
Jurisdiction was not found to be significantly different from nation in average scale score.
Jurisdiction had lower average scale score than nation.
Jurisdiction did not meet minimum participation rate guidelines.
Jurisdiction did not participate in the NAEP 2002 Reading State Assessment.
DDESS 1
DoDDS 2
Guam
American Samoa
VI
DC
HI

[1]Department of Defense domestic dependent elementary and secondary schools.

[2]Department of Defense dependents schools (overseas).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment. (Previously published as figure A on p. 6 of *The Nation's Report Card: Reading Highlights 2002*.)

Figure D. Comparison of state and national public school average reading scores, grade 8: 2002


Jurisdiction had higher average scale score than nation.
Jurisdiction was not found to be significantly different from nation in average scale score.
Jurisdiction had lower average scale score than nation.
Jurisdiction did not meet minimum participation rate guidelines.
Jurisdiction did not participate in the NAEP 2002 Reading State Assessment.
DDESS 1
DoDDS 2
Guam
American Samoa
VI
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HI

[1]Department of Defense domestic dependent elementary and secondary schools.

[2]Department of Defense dependents schools (overseas).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment. (Previously published as figure B on p. 6 of *The Nation's Report Card: Reading Highlights 2002*.)

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jurisdictions. The percentage of eighth-graders at or above *Proficient* has increased since 1998 in 5 jurisdictions and declined in 1 jurisdiction.

National Results for Student Subgroups

In addition to reporting information on all students' performance on its assessments, NAEP also studies the performance of various subgroups of students. The reading performance of subgroups of students in 2002 indicates whether they have progressed since earlier assessments and allows for comparisons with the performance of other subgroups in 2002. This article includes subgroup results at the national level; for subgroup results at the state/jurisdiction level, see the full report, *The Nation's Report Card: Reading 2002*.

When reading the subgroup results, it is important to keep in mind that there is no simple, cause-and-effect relationship between membership in a subgroup and achievement in NAEP. A complex mix of educational and socioeconomic factors may interact to affect student performance.

Average reading scores by gender

The average scores for male and female fourth-graders were higher in 2002 than in 1998 but were not found to be significantly different from the scores in 1992.

The average reading scores for both male and female eighth-graders were higher in 2002 than in 1992 and 1994. While the reading score for eighth-grade males increased between 1998 and 2002, the average score for females in 2002 was not found to be significantly different from that in 1998.

The average reading scores for both male and female twelfth-graders decreased between 1998 and 2002, resulting in average scores that were lower than in 1992 for both groups.

Average reading score gaps between males and females

In 2002, the difference in average reading scale scores favoring females over males was 6 score points at grade 4, 9 points at grade 8, and 16 points at grade 12 (figure E). While this represents a narrowing of the gap since 2000 at grade 4, the gap in 2002 was not found to be significantly different from 1992. The gap in 2002 at grade 8 was smaller than in all prior assessment years. The scale-score gap between male and female twelfth-graders was larger in 2002 than in 1992.

Achievement-level results by gender

At grade 4, the percentages of males at or above the *Basic* and *Proficient* levels were higher in 2002 than in 2000 but were not found to differ significantly from 1992. The percentages of female fourth-graders at or above *Basic* and *Proficient* were higher in 2002 than in 1998, but were not found to differ significantly from 1992.

At grade 8, the percentage of males at or above *Basic* was higher in 2002 than in any of the previous reading assessment years. The percentage of males at or above *Proficient* in 2002 was higher than that in 1992 and 1994. The percentage of eighth-grade females at or above *Basic* in 2002 was higher than in 1992 and 1994, while no significant change was detected in the percentage at or above *Proficient*.

At grade 12, the percentages of males and females at or above *Basic* were lower in 2002 than in 1992. The percentage of males at or above *Proficient* was lower in 2002 than in 1992, while there was no significant change detected since 1992 for females.

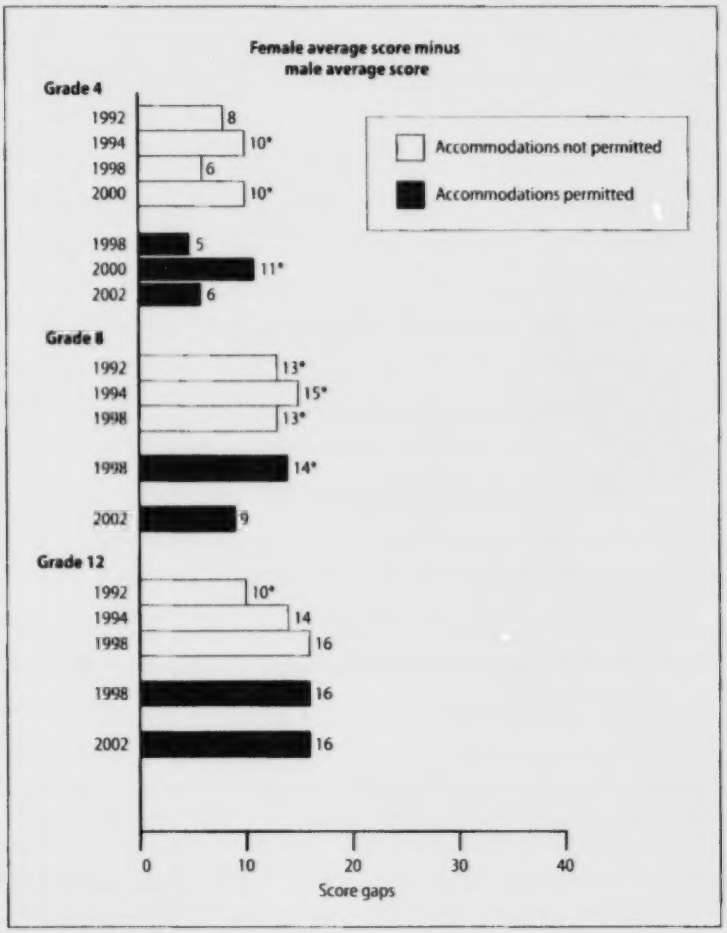
Average reading scores by race/ethnicity

Based on information obtained from school records, students who took the NAEP reading assessment were identified as belonging to one of the following racial/ethnic subgroups: White, Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native. The results presented here for 1992 through 2000 differ from those presented in earlier reading reports, in which results were reported for the same five racial/ethnic subgroups based on student self-identification.

At grade 4, both White students and Black students had higher average reading scores in 2002 than in any of the previous assessment years. The average score for Hispanic fourth-graders in 2002 was higher than in 1994, 1998, and 2000 but was not found to be significantly different from 1992. The average score in 2002 was higher than that in 1992 for Asian/Pacific Islander fourth-graders. At grade 8, average reading scores in 2002 were higher than those in 1992 and 1994 for White, Black, and Hispanic students. At grade 12, the average scores for White students and Black students in 2002 were lower than in 1992.

In 2002, White students and Asian/Pacific Islander students had higher average scores than Black and Hispanic students, and White students outperformed Asian/Pacific Islander students at all three grades. In addition, White and Asian/Pacific Islander students scored higher, on average, than American Indian/Alaska Native students at grades 4 and 8.

Figure E. Average score differences by gender, grades 4, 8, and 12: 1992–2002



*Significantly different from 2002.

NOTE: Score gaps are calculated based on differences between unrounded average scale scores.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments. (Previously published on p. 11 of *The Nation's Report Card: Reading Highlights 2002*.)

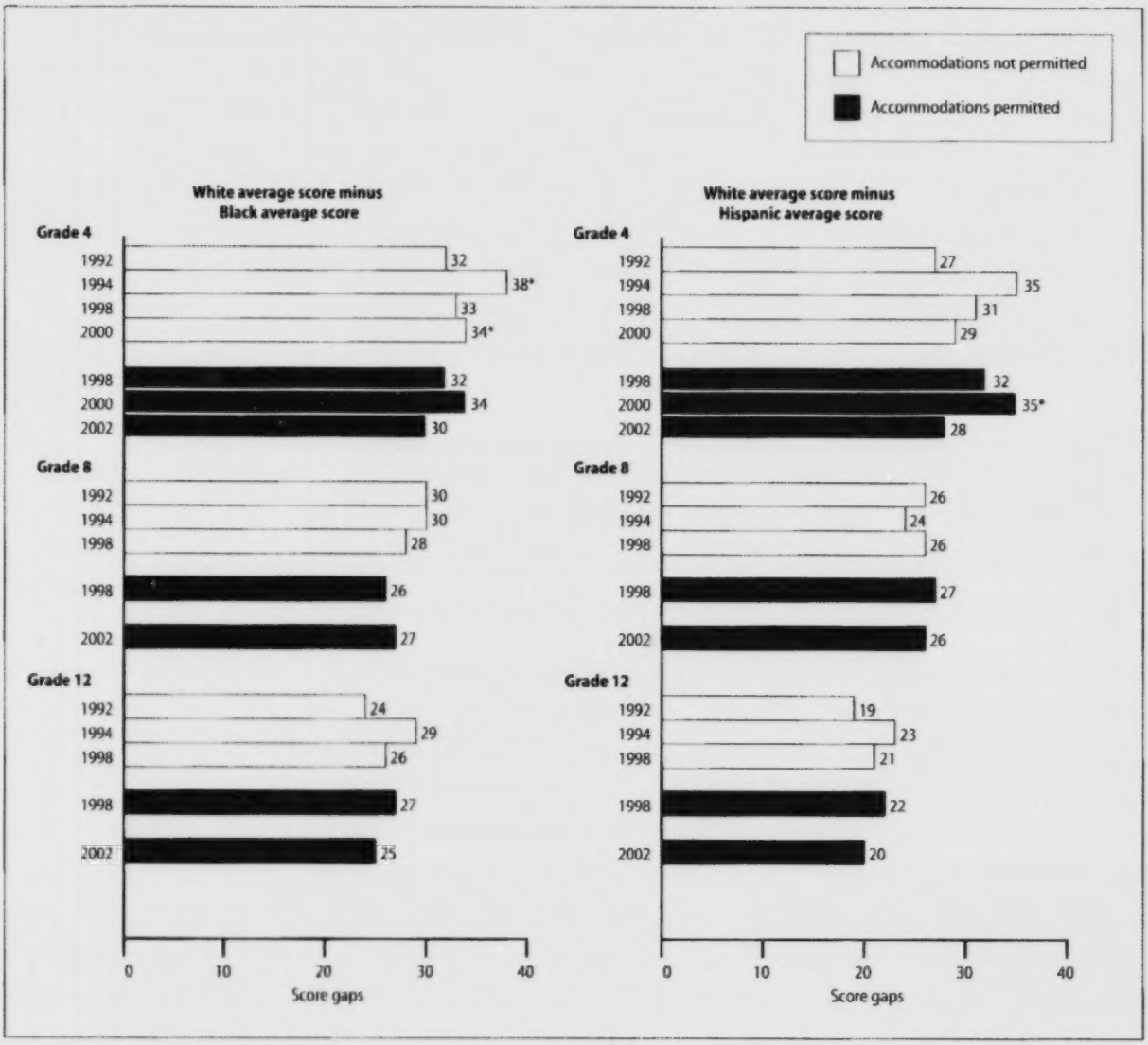
Average reading score gaps between selected racial/ethnic subgroups

Average score gaps across assessment years between White students and Black students and between White students and Hispanic students are presented in figure E. The score gap between White and Black fourth-graders was smaller in 2002 than in 1994, and the gap between White and Hispanic fourth-graders narrowed between 2000 and 2002, but neither gap was found to differ significantly from 1992. At grades 8 and 12, no significant change in either gap was seen across the assessment years.

Achievement-level results by race/ethnicity

At grade 4, the percentages of White and Black students at or above *Basic* were higher in 2002 than in any of the previous assessment years, and the percentages at or above *Proficient* were higher in 2002 than in 1992 and 1994 for both groups. The percentage of Hispanic students at or above *Basic* in 2002 was higher than in 1994 but was not found to differ significantly from 1992. The percentage of Asian/Pacific Islander students at or above *Proficient* was higher in 2002 compared to 1992.

Figure F. Average score differences by race/ethnicity, grades 4, 8, and 12: 1992–2002



*Significantly different from 2002.

NOTE: Score gaps are calculated based on differences between unrounded average scale scores. Race categories exclude Hispanic origin unless specified.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments. (Previously published on p. 13 of *The Nation's Report Card: Reading Highlights 2002*.)

At grade 8, the percentages of White students and Black students at or above the *Basic* and *Proficient* levels were higher in 2002 than in 1992 and 1994. The percentage of White students at or above *Basic* was also higher in 2002 than in 1998. A higher percentage of Hispanic students were at or above *Basic* in 2002 than in 1992 and 1994.

At grade 12, the percentages of White students at or above the *Basic* and *Proficient* levels were lower in 2002 than in 1992 and 1998.

Sample Reading Questions and Student Responses

A better understanding of students' performance on the NAEP 2002 Reading Assessment can be gained by examining sample test questions and students' responses to them. The questions shown here were used in the 2002 reading assessment. The tables that accompany these sample questions show two types of percentages: the overall percentage of students answering the question successfully and the percentage of students at each achievement level answering successfully. For the multiple-choice questions shown, the oval corresponding to the correct multiple-choice response is filled in; for the constructed-response questions, sample student responses are presented. In addition, the reading context and reading aspect are identified for each sample question. Additional sample questions can be viewed on the NAEP web site at http://nces.ed.gov/nationsreportcard/itmrls.

Grade 4 sample questions and responses

The fourth-grade reading comprehension questions presented here were based on the short story "The Box in the Barn," by Barbara Eckfield Connor. Jason, the story's main character, learns a lesson about the risks of snooping when he accidentally lets loose a puppy he believes to be his sister's birthday present. After a day of worry and guilt, Jason is relieved and excited to learn that his father has rescued the puppy, which turns out to be a surprise gift for the boy.

The following multiple-choice question asked students to choose an answer to explain the character's motivation.

Fourth-grade multiple-choice question

Percentage of students giving correct response				
	By reading achievement level			
Overall	Below *Basic* (207 or below[1])	At *Basic* (208–237[1])	At *Proficient* (238–267[1])	At *Advanced* (268 or above[1])
77	48	87	96	99

[1]NAEP reading composite scale range.

When Megan spoke to Jason in the tall weeds, she was concerned that

- Ⓐ *she wouldn't get enough presents*
- Ⓑ *her dad wouldn't get back in time for the party*
- ● *something was wrong with Jason*
- Ⓓ *the puppy was missing from the box*

Reading context:	Reading aspect:
Reading for literary experience	Developing interpretation

The following multiple-choice question asked students to identify dialogue that illustrates a character's feelings within the story.

Fourth-grade multiple-choice question

Percentage of students giving correct response				
	By reading achievement level			
Overall	Below *Basic* (207 or below[1])	At *Basic* (208–237[1])	At *Proficient* (238–267[1])	At *Advanced* (268 or above[1])
60	37	63	80	90

[1]NAEP reading composite scale range.

What does Megan say in the story that shows how she felt about Jason's getting a gift on her birthday?

- Ⓐ *"Jason, Jason, I'm six years old."*
- Ⓑ *"Are you ok?"*
- Ⓒ *"Let's see what Dad wants."*
- ● *"Isn't he wonderful, Jason?"*

Reading context:	Reading aspect:
Reading for literary experience	Examining content and structure

Grade 8 sample questions and responses

The eighth-grade reading comprehension questions presented here were based on "The Sharebots," by Carl Zimmer. This article explains the work of a Brandeis University computer scientist, Maya Mataric, who programmed her "Nerd Herd," a squad of 14 small robots, to socialize and cooperate for efficient task management.

The following multiple-choice question is a vocabulary item asking students to use contextual clues to determine the meaning of a word.

Eighth-grade multiple-choice question

Percentage of students giving correct response

	By reading achievement level			
Overall	Below *Basic* (242 or below[1])	At *Basic* (243–280[1])	At *Proficient* (281–322[1])	At *Advanced* (323 or above[1])
57	41	51	73	91

[1]NAEP reading composite scale range.

The following sentence appears in the next-to-last paragraph of the article:

> "With this simple social contract, the robots needed only 15 minutes of practice to become altruistic."

Based on how the word is used in the article, which of the following best describes what it means to be altruistic?

- Ⓐ *To engage in an experiment*
- ● *To provide assistance to others*
- Ⓒ *To work without taking frequent breaks*
- Ⓓ *To compete with others for the highest score*

Reading context:	**Reading aspect:**
Reading for information	Developing interpretation

The following short constructed-response question measured students' ability to judge the appropriateness of the article's title and to provide information from the text to support their reasoning. Answers to this question were scored on three levels: evidence of "Full Comprehension," evidence of "Partial or Surface Comprehension," or evidence of "Little or No Comprehension."

Eighth-grade short constructed-response question

Percentage of students giving "Full Comprehension" response

	By reading achievement level			
Overall	Below *Basic* (242 or below[1])	At *Basic* (243–280[1])	At *Proficient* (281–322[1])	At *Advanced* (323 or above[1])
40	16	37	60	82

[1]NAEP reading composite scale range.

Do you think "The Sharebots" is a good title for this article? Explain why or why not, using information from the article.

Sample "Full Comprehension" response

This sample response reflects "Full Comprehension" because it offers appropriate evidence from the article directly supporting the idea that the robots shared information.

It is a good title because the robots share information on location of pucks and who retrieves them

Reading context:	**Reading aspect:**
Reading for information	Forming a general understanding

Grade 12 sample questions and responses

The twelfth-grade reading comprehension questions presented here were based on "Address to the Broadcasting Industry," by Newton Minow. This selection is the text of Minow's 1961 speech to the National Association of Broadcasters, in which he describes American television programming as "a vast wasteland."

In the following multiple-choice question, students were asked to choose the answer that best describes the kind of support that Minow used to defend his position.

Twelfth-grade multiple-choice question

Percentage of students giving correct response				
	By reading achievement level			
Overall	Below *Basic* (264 or below[1])	At *Basic* (265–301[1])	At *Proficient* (302–345[1])	At *Advanced* (346 or above[1])
72	52	71	84	92

[1]NAEP reading composite scale range.

Mr. Minow mainly supported his position with

- ● *personal opinions*
- Ⓑ *rating statistics*
- Ⓒ *recommendations from advertisers*
- Ⓓ *newspaper articles*

Reading context:	Reading aspect:
Reading for information	Examining content and structure

The following short constructed-response question measured students' ability to link information from across the text in order to explain Minow's meaning of "a vast wasteland." Answers to this question were scored on three levels: evidence of "Full Comprehension," evidence of "Partial or Surface Comprehension," or evidence of "Little or No Comprehension."

Twelfth-grade short constructed-response question

Percentage of students giving "Full Comprehension" response				
	By reading achievement level			
Overall	Below *Basic* (264 or below[1])	At *Basic* (265–301[1])	At *Proficient* (302–345[1])	At *Advanced* (346 or above[1])
27	5	22	43	63

[1]NAEP reading composite scale range.

Why did Mr. Minow refer to television as "a vast wasteland"? Give an example from the speech to support your answer.

Sample "Full Comprehension" response

This response was rated "Full Comprehension" because it demonstrates a clear understanding of Minow's concern and provides a supporting example from the speech.

He called TV a vast wasteland because there is hardly anything worth watching. He used bad game shows and Westerns as examples

Reading context:	Reading aspect:
Reading for information	Developing interpretation

Data source: The National Assessment of Educational Progress (NAEP) 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

For technical information, see the complete report:

Grigg, W.S., Daane, M.C., Jin, Y., and Campbell, J.R. (2003). *The Nation's Report Card: Reading 2002* (NCES 2003–521).

Author affiliations: W.S. Grigg, M.C. Daane, Y. Jin, and J.R. Campbell, Educational Testing Service.

For questions about content, contact Arnold Goldstein (arnold.goldstein@ed.gov).

To obtain the complete report (NCES 2003–521), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

To obtain the* Highlights *publication from which this article is excerpted (NCES 2003–524), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Trends in the Use of School Choice

Stacey Bielick and Chris Chapman

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Household Education Surveys Program (NHES).

The National Household Education Surveys Program (NHES) provides a comprehensive set of information that may be used to estimate the use of school choice in the United States. Within the United States, school choice is primarily composed of programs that allow students to attend any public school within or outside of their local school district, a magnet or charter school, or a private school, or to be homeschooled. This report examines data from three administrations of NHES (1993, 1996, and 1999) in which parents were asked if their children attended their assigned public schools, public schools that they had chosen, private schools that are church related, or private schools that are not church related, and about their satisfaction and involvement with those schools. The report provides information about trends in the use and users of public schools of choice and private schools and about the outcomes of these choices—parent satisfaction and involvement, and students' plans for postsecondary education. The report also provides a brief analysis of homeschooled students. This report does not answer questions about the availability of public school choice or other school choice programs.

As figure A shows, the percentage of children enrolled in public, assigned schools for 1st through 12th grades decreased from 80 percent in 1993 to 76 percent in 1996 and 1999. The decrease in public, assigned school enrollment was almost completely offset by an increase from 11 to 14 percent in public, chosen school enrollment. Enrollment in private, church-related schools remained relatively stable at 7 to 8 percent between 1993 and 1999, and enrollment in private, non-church-related schools was about 2 percent in all 3 years examined.

Characteristics of Students in Public, Assigned and Chosen Schools and Private Schools

The trend away from public, assigned school enrollment and toward public, chosen school enrollment between 1993 and 1999 was most evident among students from low-income households.[1] Between 1993 and 1999, the proportion of 1st- through 12th-grade students whose household income was $10,000 or less who were in public, assigned schools fell from 83 percent to 74 percent (this decrease was mostly offset by an increase in public, chosen school enrollment). In contrast, over the same period, the proportion of 1st- through 12th-grade students from households with incomes of more than $75,000 attending public, assigned schools remained relatively steady at around 70 percent. No differences were detected in the proportion of students in this high-income group attending private schools between 1993 and 1999. Students from families with higher incomes were overall more likely to attend private schools than were students from families with lower incomes.

Other student and family characteristics were also associated with school choice. In each of these years (1993, 1996, and 1999), Black students in the 1st through 12th grades had a higher rate of enrollment in public, chosen schools than did White or Hispanic students. Generally, a greater percentage of 1st- through 12th-grade students living in urban areas attended public, chosen schools and private schools than did students living outside urban areas.

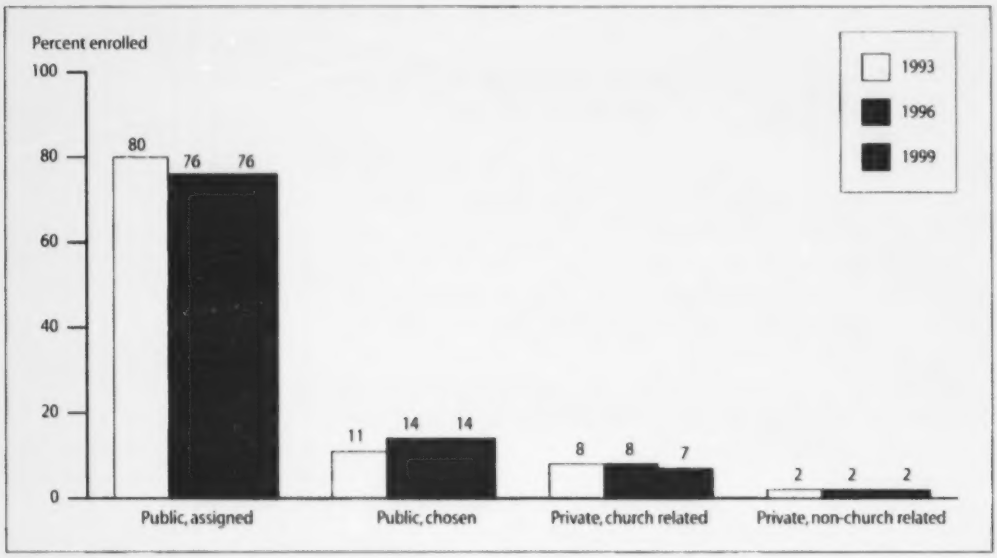
In all three survey years, a higher percentage of 1st- through 12th-grade students living in two-parent households were enrolled in private, church-related schools than were students living in one-parent households. Students whose parents possessed at least a bachelor's degree had a higher rate of enrollment in private schools, both church related and non-church related, than students whose parents had obtained at most a high school diploma, a GED, or less. First- through 12th-grade students with disabilities attended private, church-related schools at a lower rate than did students without disabilities. There were no differences detected between students with and without disabilities for other types of schools.

Characteristics of Homeschooled Children

Homeschoolers are not mirror images of students in either public or private schools, differing from both in a number of characteristics. Homeschoolers differed from students in public schools in that their parents tended to be better educated. Homeschoolers were more likely to be White and

[1] Income data are categorical and have not been adjusted for inflation. Hence, they do not reflect the same purchasing power for the 3 years. Independent analyses not shown here indicate that the patterns found for unadjusted income are the same as those found using a measure of poverty, which adjusts for inflation.

Figure A. Percentage of students enrolled in grades 1–12 by public and private school type: 1993, 1996, and 1999



NOTE: Includes homeschooled students enrolled in public or private schools for 9 or more hours per week.

SOURCE: U.S. Department of Education, National Center for Education Statistics, School Readiness Survey of the 1993 National Household Education Surveys Program (SR-NHES:1993); School Safety and Discipline Survey of the 1993 National Household Education Surveys Program (SS&D-NHES:1993); Parent and Family Involvement in Education/Civic Involvement Survey of the 1996 National Household Education Surveys Program (PFI/CI-NHES:1996); and the Parent Survey of the 1999 National Household Education Surveys Program (Parent-NHES:1999).

to live in two-parent households than were students in public assigned or chosen schools.

Homeschoolers differed from private school students in fewer ways than they differed from public school students. Homeschoolers were less likely than private school students to live in households with annual incomes over $75,000. They were also less likely to live in the Northeast and inside urban areas and more likely to live in rural areas.

Differences in Parents' Satisfaction and Involvement With Their Children's Schools[2]

School choice makes a difference in parent satisfaction. Parents whose children attended either public, chosen schools or private schools were more likely to say they were very satisfied with their children's schools, teachers, academic standards, and order and discipline than were parents whose children attended public, assigned schools. Parents whose children attended private schools were more involved in activities at their children's schools than were parents whose children attended public, assigned and public, chosen schools.

[2]Questions about satisfaction and parental involvement were asked only of parents of students in grades 3–12 in 1993. For this reason, discussion of satisfaction and involvement is limited to students in grades 3–12.

Differences in Parents' Expectations for Their Children's Postsecondary Education

According to parent reports, at least 9 out of 10 6th- through 12th-grade students had plans for postsecondary education after high school regardless of school type. However, more students in private, church-related schools were expected by their parents to graduate from a 4-year college than were public school students. There were no differences detected in parents' expectations between public, assigned and public, chosen schools.

Data source: The NCES 1993, 1996, and 1999 National Household Education Surveys Program (NHES).

For technical information, see the complete report:

Bielick, S., and Chapman, C. (2003). *Trends in the Use of School Choice* (NCES 2003–031).

Author affiliations: S. Bielick, Education Statistics Services Institute; C. Chapman, NCES.

For questions about content, contact Chris Chapman (chris.chapman@ed.gov).

To obtain the complete report (NCES 2003–031), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Trends in High School Vocational/Technical Coursetaking: 1982–1998

Karen Levesque

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the High School and Beyond Longitudinal Study (HS&B), the National Education Longitudinal Study of 1988 (NELS:88), and the High School Transcript Study (HSTS).

Vocational/technical education is a common component of public high school education in the United States. Among 1998 public high school graduates, 96.5 percent earned at least some credits in vocational/technical education in high school. In addition, the number of credits earned in vocational/technical education by 1998 graduates was not significantly different on average from the number of credits they earned in English and in social studies, and they earned more credits in vocational/technical education than they did in mathematics, science, fine arts, or foreign languages.

Purpose of the Report

This report examines vocational/technical coursetaking among public high school graduates between 1982 and 1998. The report focuses on trends in vocational/technical coursetaking overall, in introductory technology and computer-related coursetaking, and in the ways in which high school students combine vocational/technical and academic coursetaking. The report analyzes these trends by examining high school transcripts for the graduating classes of 1982, 1990, 1992, 1994, and 1998.[1] Transcripts provide information on the courses that graduates took in grades 9 through 12. For simplicity's sake, the report refers to this information as "high school coursetaking." With the exception of the section on vocational/technical coursetaking by grade level, which examines coursetaking in each of grades 9 through 12 separately, the report describes the cumulative coursework that graduates took in high school. The report uses the National Center for Education Statistics (NCES) Secondary School Taxonomy (SST) to classify courses into broad course groupings. As figure A shows, the SST classifies high school courses into three main areas (academic, vocational/technical, and enrichment/other) and their curricular subareas.

The vocational/technical curriculum

High school vocational/technical education encompasses three subcurricula: specific labor market preparation or "occupational education," general labor market preparation, and family and consumer sciences education (figure A). Occupational education consists of courses that teach skills and knowledge required in a particular occupation or set of related occupations. Based on SST classifications, occupational education in this report consists of the 10 broad and 18 narrow program areas shown in figure A.

General labor market preparation consists of courses that teach general employment skills that are not specific to one occupational area, such as basic typewriting/keyboarding, introductory technology education, and career preparation and general work experience courses. Family and consumer sciences education consists of courses intended to prepare students for family and consumer roles outside of the paid labor market.[2]

As of 1998, 90.7 percent of public high school graduates had earned credits in occupational education in high school, 58.8 percent in general labor market preparation, and 44.4 percent in family and consumer sciences education.

Key measures of participation

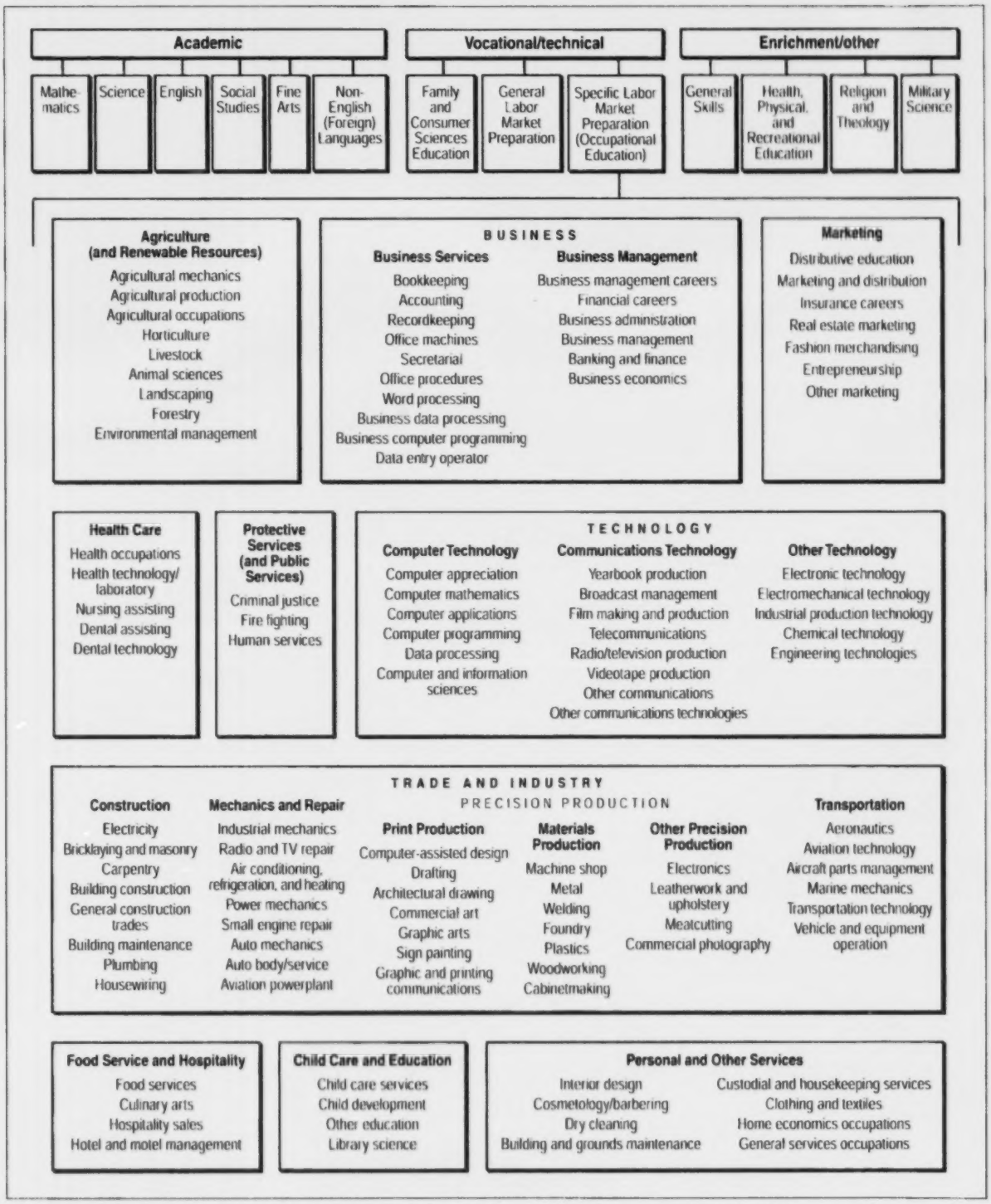
Seven measures were used to define participation in vocational/technical education:

- *Vocational/technical coursetakers.* Graduates earning more than 0.0 credits in vocational/technical education in high school. All of the following groups of students are subsets of this group.
- *Occupational coursetakers.* Graduates earning more than 0.0 credits in occupational education in high school. This measure is a subset of the previous measure.
- *Vocational/technical investors.* Graduates earning 3.0 or more credits in vocational/technical education in high school. All of the following groups of students are subsets of this group.

[1]These transcript studies were conducted as part of the High School and Beyond Longitudinal Study of 1980 Sophomores (HS&B-So,1982 graduates), the National Education Longitudinal Study of 1988 (NELS, 1992 graduates), and the High School Transcript Study (HSTS) of 1990, 1994, and 1998 (1990, 1994, and 1998 graduates, respectively).

[2]Home economics–related courses that prepare students for the paid labor market are included under occupational education, in the child care and education, food service and hospitality, and personal and other services program areas.

Figure A. Secondary school taxonomy



SOURCE: Adapted from Bradby, D., and Hoachlander, E.G. (1999). *1998 Revision of the Secondary School Taxonomy* (NCES 1999–06). U. S. Department of Education. Washington, DC: National Center for Education Statistics Working Paper.

- *Occupational investors*. Graduates earning 3.0 or more credits in occupational education in high school, regardless of whether they concentrate their occupational coursetaking in a single program area. This measure is a subset of the previous measure.
- *Occupational concentrators*. Graduates earning 3.0 or more credits in high school in one of the 10 broad occupational program areas in figure A.[3] This measure is a subset of the previous measure. The report also provides information on graduates concentrating (earning 3.0 or more credits) in one of the 18 narrow occupational program areas in figure A.
- *Advanced occupational concentrators*. Graduates earning 3.0 or more credits in high school in one of the 10 broad occupational program areas in figure A, with at least 1.0 advanced credit in that program area. Advanced occupational coursework includes second- or higher-level courses and cooperative education courses.[4] This measure is a subset of the previous measure.
- *Advanced occupational concentrators with cooperative education*. Graduates earning 3.0 or more credits in high school in one of the 10 broad occupational program areas in figure A, with at least 1.0 cooperative education credit in that program area.[5] This measure is a subset of the previous measure.

Figure B shows the percentage of 1998 public high school graduates who fell within each participation measure. According to the least restrictive measure—the percentage of public high school graduates who were vocational/technical coursetakers—almost all 1998 graduates (96.5 percent) participated in the vocational/technical curriculum in high school. According to the most restrictive measure—the percentage of graduates who were advanced occupational concentrators with cooperative education—just 4.5 percent of 1998 graduates were counted as participating in vocational/technical education.

[3]In the small number of cases where graduates earned 3.0 or more credits in more than one occupational program area, they were assigned to the program area in which they earned the most credits.

[4]The SST divides the occupational courses in each program area into four categories: first-level, second- or higher-level, cooperative education, and specialty courses. The first three categories generally represent sequential coursetaking.

[5]Cooperative education awards school credit for work experience that is related to a student's occupational program and typically alternates work placements and classroom time.

Overall Trends in Vocational/Technical Coursetaking

Between 1982 and 1998, the primary change in vocational/technical coursetaking was not in the proportion of high school students participating in vocational/technical education but in the amount of vocational/technical education they took. That is, the breadth of vocational/technical coursetaking declined slightly, while the depth of this coursetaking declined more steeply. However, most declines in vocational/technical coursetaking occurred by the early 1990s.

The average number of vocational/technical credits earned by graduates declined between 1982 and 1990, after which there were no statistically significant changes. However, during the 1990s, vocational/technical credits continued to represent a declining share of the total high school credits that graduates earned. This relative decline was due to the fact that public high school graduates earned on average more academic credits and—to a lesser extent—more enrichment/other credits over this decade.

Trends in the three vocational/technical subcurricula

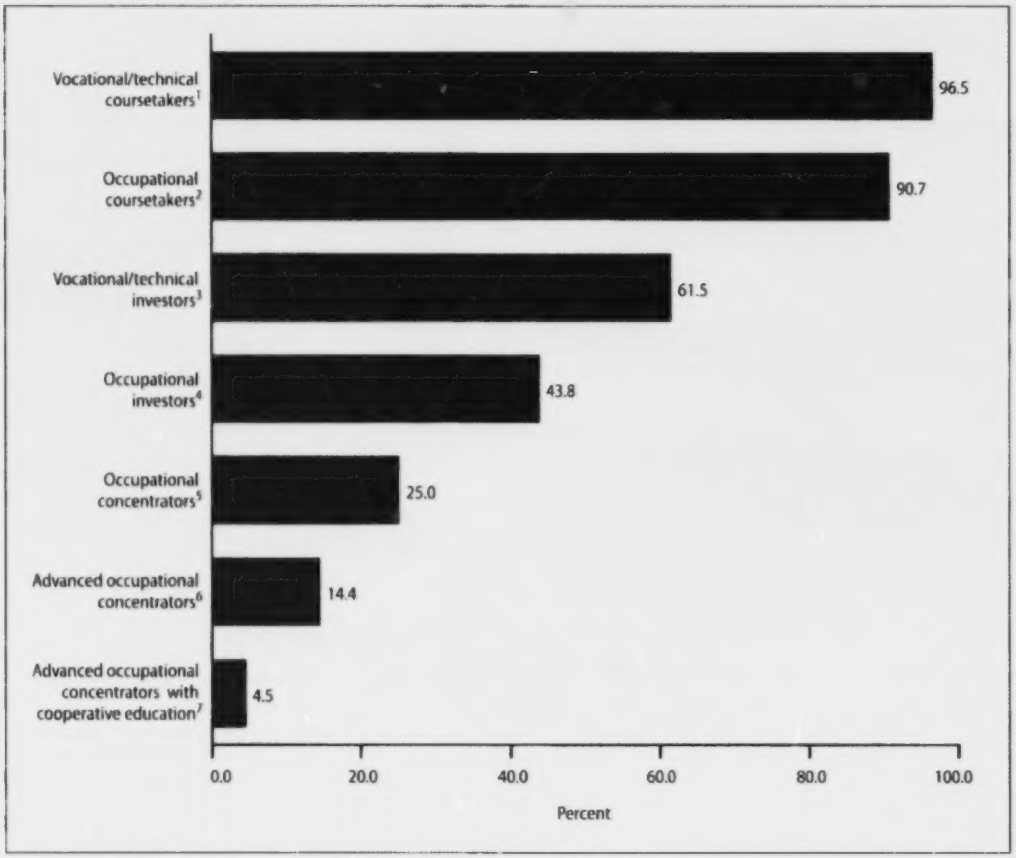
The decrease since 1982 in average vocational/technical credits earned by graduates was due primarily to a decrease in general labor market preparation coursetaking. Furthermore, this decline was due primarily to a decrease between 1982 and 1998 in the number of basic typewriting/keyboarding courses that graduates took in high school. The number of credits that graduates earned in family and consumer sciences education also declined over this period.

In contrast, there were no statistically significant changes between 1982 and 1998 in the average number of credits that graduates earned in occupational education in high school (about 3 credits for each graduating class). There was also no significant change between 1982 and 1998 in the breadth of occupational coursetaking, with most public high school graduates earning at least some occupational credits during the period studied.

Vocational/technical coursetaking by grade level

For the high school graduating class of 1998, the majority of vocational/technical coursetaking (about 60 percent) occurred in the 11th and 12th grades, while about 40 percent occurred in the 9th and 10th grades. Specifically, 1998 graduates earned 1.51 credits on average—the equivalent of about one and a half full-year courses—in the 12th grade. In contrast, 1998 graduates earned 1.01 credits

Figure B. Percentage of public high school graduates meeting different measures of participation in vocational/technical education: 1998



[1]Graduates earning greater than 0.0 credits in vocational/technical education.

[2]Graduates earning greater than 0.0 credits in occupational education.

[3]Graduates earning 3.0 or more credits in vocational/technical education.

[4]Graduates earning 3.0 or more credits in occupational education, regardless of whether they concentrate their occupational coursetaking in a single program area.

[5]Graduates earning 3.0 or more credits in one of the following 10 broad occupational program areas: agriculture, business, marketing, health care, protective services, technology, trade and industry, food service and hospitality, child care and education, and personal and other services.

[6]Graduates earning 3.0 or more credits in one of the 10 broad occupational program areas, with at least 1.0 advanced credit in that program area. Advanced occupational coursework includes second- or higher-level courses and cooperative education courses.

[7]Graduates earning 3.0 or more credits in one of the 10 broad occupational program areas, with at least 1.0 cooperative education credit in that program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1998 High School Transcript Study (HSTS).

in the 11th grade, 0.75 credits in the 10th grade, and 0.71 credits in the 9th grade.

The timing of occupational and family and consumer sciences education coursetaking was similar to that of overall vocational/technical coursetaking, with more of this coursetaking occurring in grade 12 than in earlier grades. However, general labor market preparation coursetaking was more likely to occur in grade 9.

Trends in occupational coursetaking varied at the different grade levels over the period studied. The average number of occupational credits earned by public high school graduates in the 11th grade decreased between 1982 and 1998, whereas the average number earned in the 9th grade increased. There were no statistically significant changes in the average number of occupational credits earned in the 10th and 12th grades. The reduction in occupational coursetaking in the 11th grade may be related to graduates

taking additional academic courses in that grade over the period studied, thereby having less time for occupational coursework.

Trends in Occupational Coursetaking by Program Area

The average number of occupational credits that 1998 graduates earned in high school was not statistically different from the average number earned by 1982 graduates. However, the percentage of public high school graduates who concentrated in occupational education—those who earned 3.0 or more credits in one of the 10 broad occupational program areas in figure A—declined from 33.7 percent in 1982 to 27.8 percent in 1990. No significant changes were detected after 1990, however, with about 25 percent of 1992, 1994, and 1998 graduates concentrating in occupational education. Trends in occupational coursetaking varied widely by program area, however. The following sections examine program area trends between 1982 and 1998 in the breadth of occupational coursetaking (that is, the percentage of graduates taking at least one course in a program area) and in the depth of occupational coursetaking (including both the average credits earned and the percentage of graduates concentrating in a program area).

Program areas with declining coursetaking

Among the 18 narrow occupational program areas in figure A, the areas of materials production, business management, and mechanics and repair exhibited declines in both the breadth and depth of high school coursetaking over the period studied. For example, materials production exhibited declines between 1982 and 1998 in the percentage of public high school graduates who took at least one course in the program area, in the average number of credits earned by public high school graduates in the program area, and in the percentage of graduates who concentrated (earned 3.0 or more credits) in the program area. Declines in materials production and in mechanics and repair coincided with projected changes in occupational employment in precision production, craft, and repair occupations (Hurst and Hudson 2000).

Paralleling the trends in vocational/technical education and in occupational education noted above, the business services program area exhibited less change in the breadth of coursetaking than in the depth of that coursetaking. There was no statistically significant difference in the percentage of 1982 and 1998 graduates who earned business services credits in high school. In contrast, 1998 graduates earned fewer credits on average in business services than did 1982 graduates, and fewer public high school graduates concentrated (earned 3.0 or more credits) in business services over that period.

Declines between 1982 and 1998 in business services coursetaking were due primarily to declines in average credits earned in non-computer-related business services courses (including bookkeeping, accounting, secretarial, and general office procedures courses). In contrast, average credits earned in computer-related business services courses increased over the same period. Overall declines in business services coursework coincided with projections of below-average growth for secretary and typist occupations (Hurst and Hudson 2000).

Program areas with increasing coursetaking

Two of the 18 narrow occupational program areas in figure A—computer technology and communications technology—generally exhibited increases in both the breadth and depth of coursetaking over the period studied. In addition, both health care programs and child care and education programs exhibited some increase in the depth—but not the breadth—of coursetaking over the period studied. To some extent, these increases in occupational coursetaking reflect projected changes in employment for technicians and related support occupations, health service occupations, and child care workers and teacher aides (Hurst and Hudson 2000).

A Closer Look at Trends in Occupational Concentrating

Between 1982 and 1998, high school students became less likely to concentrate in occupational education. However, the decline in occupational concentrating was not due to changes in the percentage of 1982 and 1998 graduates who earned 3.0 or more occupational credits (who were occupational investors) in high school. Rather, the decline reflected a change in coursetaking among these occupational investors. The percentage of occupational investors who concentrated in occupational education in high school—who earned 3.0 or more credits in one of the 10 broad occupational program areas in figure A—declined from 72.8 percent in 1982 to 59.1 percent in 1992, after which no statistically significant changes were detected.

Additionally, the percentage of public high school graduates who completed an advanced occupational concentration in high school—occupational concentrators who earned at least 1.0 credit in advanced coursework in their program

area—declined from 24.0 percent in 1982 to 16.1 percent in 1990, after which no statistically significant changes were detected. Part of this decline in advanced occupational concentrating among graduates was due to the fact that graduates were less likely to concentrate in occupational education in general over the period studied. However, the percentage of occupational concentrators who completed an advanced concentration in their program area also declined from 1982 to 1990, after which no statistically significant changes were detected.

In order to understand changes in coursetaking and concentrating in some detail, the report compared trends among the 18 narrow occupational program areas in figure A.

Shifts away from concentrated occupational coursetaking

What types of occupational courses did occupational investors (graduates who earned 3.0 or more occupational credits in high school) take instead of concentrating in an occupational program area? Some of the decline in the propensity of occupational investors to concentrate in occupational education was due to a shift from concentrating (earning 3.0 or more credits) in business services to taking more communications technology and computer technology courses. That is, occupational investors as a group took fewer business services courses over the period studied (specifically, fewer non-computer-related business services courses)—enough to reduce their concentrating in this program area at a relatively high rate. At the same time, they took additional communications technology and computer technology courses—but not enough to increase their rates of concentrating on a par with their increased coursetaking in these program areas. Thus, the decline in occupational investors' propensity to concentrate in business services coincided with an increase in their total computer-related coursetaking within the occupational education curriculum.

Shifts away from completing an advanced occupational concentration

What types of occupational courses did occupational concentrators take in high school instead of completing advanced coursework in their area of concentration? In part, occupational concentrators took fewer courses in general in their respective areas of concentration between 1982 and 1998. This decrease was due primarily to a decline in second- or higher-level coursetaking, rather than declines in first-level, cooperative education, or specialty courses. As a result of this change, occupational concentrators shifted the distribution of their occupational coursework toward specialty courses. (Typically, specialty courses either offer specialized occupational training or provide related skills that can be applied to a range of occupations and are not part of the usual sequence of courses in a program area.)

Work-Based Learning

About one-third of 1998 public high school graduates took at least some work-based learning courses—defined here as general work experience courses and cooperative education courses—in high school.[6] There were no significant differences in either the percentage of 1982 and 1998 graduates taking these courses or the average number of credits these graduates earned in work-based learning courses. Both 1982 and 1998 graduates earned on average about 0.5 credits in work-based learning courses—equivalent to one half-year course.

Vocational/Technical Coursetaking and State High School Graduation Requirements

The report examined changes in participation in vocational/technical education among states that had different changes in high school graduation requirements. Because of limitations in the data, the analysis was restricted to changes between 1990 and 1998.[7] Although there were no significant differences between 1990 and 1998 in the percentage of graduates taking vocational/technical courses or in the average number of vocational/technical credits earned by graduates, coursetaking patterns varied somewhat with changes in state graduation requirements over this shortened period.

There was some evidence that, in states that increased their total graduation requirements or their total nonvocational/technical requirements, students decreased their vocational/technical coursetaking. For example, students in states that increased their total high school graduation requirements by 2.0 or more credits between 1990 and 1998 earned on average 1.0 fewer vocational/technical credits by the end of the period. Similarly, students in states that increased their

[6]General work experience awards school credit for work that is *not* connected to a specific occupational program, while cooperative education awards school credit for work experience that *is* related to a student's occupational program. This analysis focuses on these types of work-based learning, because they are awarded school credit and recorded on transcripts. In addition, as of 1997, cooperative education was one of the two most common forms of work-based learning in high schools, along with job shadowing (Levesque et al. 2000).

[7]It was not possible to link student transcripts to states in the HS&B-So data set, which provided information on 1982 high school graduates for this report, and data on state graduation requirements were not available for 1992 and 1994.

total high school graduation requirements by 2.0 or more credits between 1990 and 1998 were less likely by the end of the period to invest (earn 3.0 or more credits) in vocational/technical education, to invest (earn 3.0 or more credits) in occupational education, or to concentrate (earn 3.0 or more credits) in one of the 10 broad occupational program areas in figure A. In contrast, students in states that increased their total high school graduation requirements by fewer than 2.0 credits, that did not increase these requirements, or that did not have applicable state requirements did not exhibit statistically significant decreases on any of these vocational/technical coursetaking measures.

Trends in Computer-Related Coursetaking

The SST currently includes all computer-related courses (including those taught in mathematics and computer science departments) under the vocational/technical curriculum. Although some of these courses are classified as general labor market preparation (under basic typewriting/keyboarding and technology education), most computer-related courses are classified as occupational education. These latter courses are included under the business services, computer technology, and drafting/graphics areas.

Computer-related coursetaking in 1998

The 1998 public high school graduates earned on average 1.05 credits in computer-related courses in high school—equivalent to about one full-year computer-related course. Most of these credits were earned in the occupational curriculum, while the rest were earned in general labor market preparation. Within the occupational curriculum, 1998 public high school graduates earned more computer-related credits on average in the business services and the computer technology program areas than in computer-related drafting/graphics courses. Within the general labor market preparation curriculum, 1998 public high school graduates earned more credits in basic typewriting/keyboarding than in technology education.

Within the computer technology program area, 1998 graduates earned more high school credits on average in computer applications courses than in any other computer technology area (including computer science and systems, computer programming, data processing, and computer mathematics).

Computer-related coursetaking from 1990 to 1998

Due to inconsistencies over time in whether basic typewriting/keyboarding courses were classified as computer related (Alt and Bradby 1999), trends in computer-related general labor market preparation courses and in overall computer-related coursetaking were examined from 1990 to 1998. There was no significant difference in the average number of overall computer-related credits earned by 1990 and 1998 graduates or in the average number of computer-related credits they earned within the occupational curriculum. However, comparing 1998 graduates with their 1990 counterparts, there was a decline in the average number of computer-related credits these graduates earned within the general labor market preparation curriculum. This decline was due primarily to graduates taking fewer basic typewriting/keyboarding courses in high school during the 1990s.

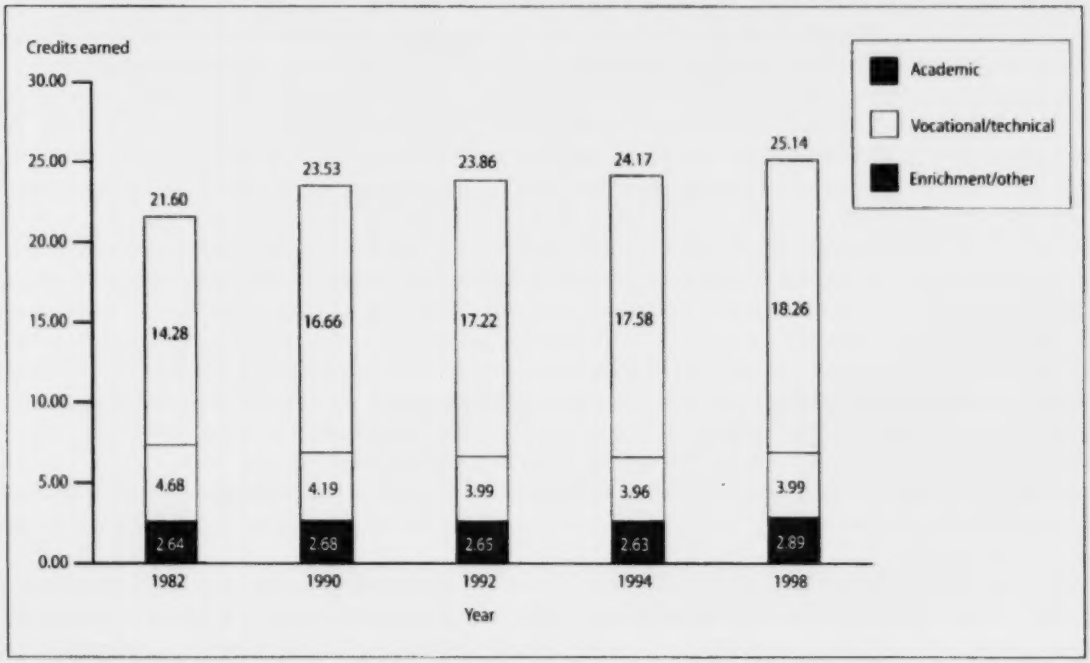
In contrast to trends in overall computer-related coursetaking and in computer-related general labor market preparation coursetaking, trends in computer-related occupational coursetaking cover the entire period from 1982 to 1998. Graduates earned on average 0.58 more computer-related occupational credits in high school in 1998 than in 1982, equivalent to more than one additional half-year course. Specifically, 1998 public high school graduates earned on average 0.32 more computer-related credits in business services, compared with 0.20 more credits in computer technology and 0.06 more computer-related credits in drafting/graphics than their 1982 counterparts.

Academic Coursetaking Trends

Between 1982 and 1998, public high school graduates increased both the number and rigor of the academic courses they took in high school. On average, 1998 graduates earned 3.98 more credits in academic courses—equivalent to about four full-year academic courses—and they earned more credits in each core academic subject (English, mathematics, science, and social studies) than their 1982 counterparts. The 1998 graduates were also more likely to take advanced coursework in English, mathematics, and science than the 1982 graduates.

Graduates on average decreased their vocational/technical coursetaking by a relatively small amount while taking additional academic coursework over the period studied. In general, students made room for additional academic courses primarily by increasing the total number of credits they earned in high school rather than by reducing their vocational/technical coursetaking. The 1998 public high school graduates earned 0.69 fewer vocational/technical credits on average than the 1982 graduates, while they earned 3.98 more academic credits and 0.25 more enrichment/other credits than their 1982 counterparts (figure C).

Figure C. Average number of credits earned by public high school graduates, by curriculum: Various years, 1982–98



NOTE: Detail may not sum to totals because of rounding. Years are not spaced proportionally.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Longitudinal Study of 1980 Sophomores, "High School Transcript Study" (HS&B-So: 80/82); National Education Longitudinal Study of 1988 (NELS:88/92), "Second Follow-up, Transcript Survey, 1992"; and 1990, 1994, and 1998 High School Transcript Study (HSTS).

Trends in the academic coursetaking of occupational concentrators

Both occupational concentrators and nonconcentrators (the latter including all public high school graduates except occupational concentrators) increased the number and rigor of the academic courses they took between 1982 and 1998. In some instances, the rate of increase was greater for occupational concentrators, possibly because they took fewer and less rigorous academic courses than nonconcentrators at the beginning of the period. Nevertheless, as of 1998, occupational concentrators still took fewer and less rigorous academic courses than nonconcentrators.

For example, although the increase between 1982 and 1998 in mathematics credits earned by occupational concentrators was greater than the corresponding increase for nonconcentrators, occupational concentrators still earned fewer mathematics credits than nonconcentrators at the end of the period. In addition, although both occupational concentrators and nonconcentrators were more likely to take advanced mathematics coursework in 1998 than in 1982, nonconcentrators were more likely than concentrators to do so at the end of the period.

However, as of 1998, coursetaking differences between occupational concentrators and nonconcentrators in English, mathematics, and social studies were fairly small (with differences of less than 0.4 credits on average), and the level of coursetaking for both groups was fairly high (with more than 75 percent meeting the New Basics standards in these subjects[8]), compared with the level of science coursetaking. As of 1998, the gap between occupational concentrators and nonconcentrators in science coursetaking was significantly larger in chemistry than in biology.

[8]The New Basics core academic standards include 4 years of English and 3 years each of mathematics, science, and social studies (National Commission on Excellence in Education, 1983).

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Combining college-preparatory and occupational coursework

In keeping with increased academic coursetaking in general, high school students became more likely to complete college-preparatory coursework over the period studied.[9] The percentage of public high school graduates completing college-preparatory coursework in high school increased from 8.7 percent for the class of 1982 to 38.9 percent for the class of 1998.

Students also became more likely to combine college-preparatory and occupational coursework over the period studied. Specifically, the percentage of public high school graduates completing both college-preparatory coursework and an occupational concentration in high school increased from 0.6 percent for the class of 1982 to 6.5 percent for the class of 1998. Similarly, the percentage of occupational concentrators who also completed college-preparatory coursework increased from 1.7 percent for 1982 graduates to 25.9 percent for 1998 graduates.

Related academic and occupational coursetaking by program area

The report identified specific mathematics and science courses that were judged to be related to the 18 narrow occupational program areas in figure A. The report then compared the related academic coursetaking rates for concentrators in specific occupational programs with the overall coursetaking rate for 1998 public high school graduates.

Based on this analysis, concentrators in several occupational program areas were found to have taken related academic courses at rates that were below the average rate for all 1998 public high school graduates. In particular, concentrators in construction, mechanics and repair, materials production, food service and hospitality, and personal and other services took all of the identified related academic courses at *below*-average rates. At the same time, concentrators in communications technology took some of their identified related academic courses at *above*-average rates.

However, concentrators in most program areas took related academic courses at rates that were not statistically different from the average for all graduates, including concentrators in agriculture, business services, business management, marketing, health care, computer technology, print production, and other precision production.

[9]College-preparatory coursework is defined as earning 4.0 or more credits in English; 3.0 or more credits in mathematics at the Algebra 1 or higher level; 2.0 or more credits in biology, chemistry, or physics; 2.0 or more credits in social studies with at least 1.0 credit in U.S. or world history; and 2.0 or more credits in a single foreign language.

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Data sources: The NCES High School and Beyond Longitudinal Study of 1980 Sophomores, "High School Transcript Study" (HS&B-So:80/82); the National Education Longitudinal Study of 1988 (NELS:88/92), "Second Follow-up, Transcript Survey," 1992; and the 1990, 1994, and 1998 High School Transcript Study (HSTS).

For technical information, see the complete report:

Levesque, K. (2003). *Trends in High School Vocational/Technical Coursetaking: 1982–1998* (NCES 2003–025).

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To obtain the complete report (NCES 2003–025), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Public School Student, Staff, and Graduate Counts by State: School Year 2001–02

Beth Aronstamm Young

This article was originally published as a Statistical Analysis Report. The universe data are from the Common Core of Data (CCD) "State Nonfiscal Survey of Public Elementary/Secondary Education." Technical notes and definitions from the original report have been omitted.

Introduction

This annual report presents findings from the Common Core of Data (CCD) "State Nonfiscal Survey of Public Elementary/Secondary Education: School Year 2001–02." Data for this annual NCES survey are collected directly from state education agencies and include the total number of students, teachers, and graduates in the United States. Data from the 2001–02 CCD survey provide answers to many questions about public elementary and secondary education, including the following:

- How many students were enrolled in public elementary and secondary schools?
- How many teachers worked in public elementary and secondary schools?
- How many and what kinds of staff worked in public elementary and secondary schools?
- What was the racial/ethnic background of students enrolled in public schools?
- How many students graduated from public high school during the previous school year (2000–01)?
- How many students were educated in Department of Defense (DoD), Bureau of Indian Affairs (BIA), and outlying area schools? (Data on DoD, BIA, and outlying area schools are discussed separately. These data are not included in national totals.)

How many students were enrolled in public elementary and secondary schools?

In the 2001–02 school year, there were 47.7 million students enrolled in public elementary and secondary schools in the 50 states and the District of Columbia (table 1).[1] Of these students, 26.3 million (55.2 percent) were in prekindergarten through grade 6, an additional 20.9 million (43.9 percent) were in grades 7 through 12, and the remaining 0.6 million (1.0 percent) were ungraded students[2] (figure 1). Not including prekindergarten or ungraded classes, grade 9 had the most students while grade 12 had the fewest.

California had the most public elementary and secondary school students (6.2 million), followed by Texas (4.2 million) and New York (2.9 million) (table 1). Thirteen states had over 1 million public elementary and secondary students in the 2001–02 school year. Only the District of Columbia (75,392) and Wyoming (88,128) had fewer than 100,000 students. Nine states (Alaska, Delaware, Hawaii, Montana, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming) and the District of Columbia had fewer than 200,000 public elementary and secondary students in the 2001–02 school year.

The 47.7 million students enrolled in the 2001–02 school year represents an 11.5 percent increase in the number of students being served in the public elementary and secondary school system since the 1991–92 school year (table 10). Between the 1991–92 and 2001–02 school years, Nevada had the largest percentage increase (68.5 percent) in the number of students. Nine states (Iowa, Louisiana, Maine, Mississippi, Montana, North Dakota, South Dakota, West Virginia, and Wyoming) and the District of Columbia had a decrease in the number of students between these years. Wyoming had the largest percentage decrease in students, with a 13.7 percent drop.

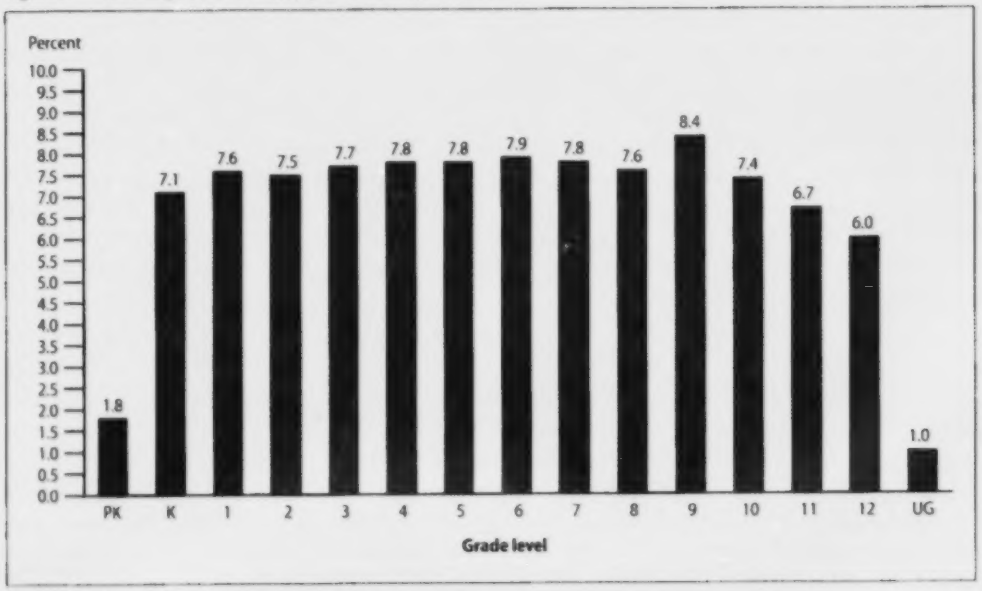
How many teachers worked in public elementary and secondary schools?

About 3.0 million full-time-equivalent teachers provided instruction in public elementary and secondary schools in the 2001–02 school year (table 2). Among this group, 56.3 percent (1.7 million) were elementary school teachers (including prekindergarten and kindergarten teachers), 36.0 percent (1.1 million) were secondary school teachers, and 7.8 percent (232,654) were teachers who taught ungraded classes or were not assigned a specific grade (figure 2). Eight states had over 100,000 teachers (California, Florida, Illinois, New Jersey, New York, Ohio, Pennsylvania, and Texas). Two of these, California and Texas, had over a quarter million teachers each.

[1] Grade-level counts do not sum to 47.7 million because of rounding.

[2] Ungraded students are students assigned to a class or program that does not have standard grade designations.

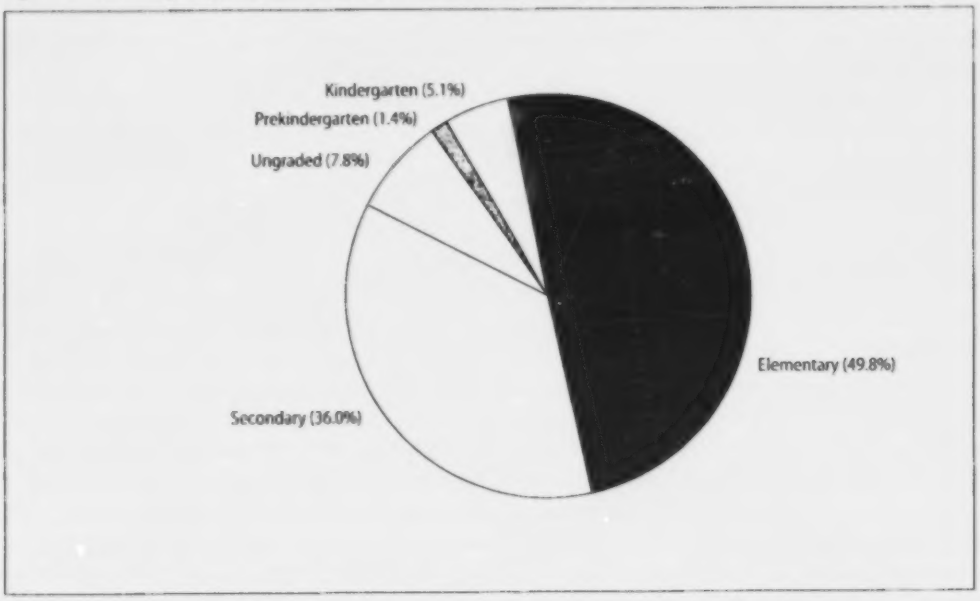
Figure 1. Percentage of students, by grade: School year 2001–02



NOTE: PK = prekindergarten; K = kindergarten; and UG = ungraded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Figure 2. Percentage of public elementary and secondary teachers, by level of instruction: School year 2001–02



NOTE: Detail may not sum to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

While there was an 11.5 percent increase in students between the 1991–92 and 2001–02 school years, there was a 21.2 percent increase in the number of teachers during this period (table 10). As with the number of students, Nevada also had the largest percentage increase in the number of teachers (69.0 percent). Only the District of Columbia and one state had a decrease in the number of teachers between these two school years. The number of teachers went down by 22.0 percent in the District of Columbia and by 4.1 percent in West Virginia.

The ratio of total students to total teachers for the nation was 15.9 students per teacher in the 2001–02 school year (table 2). Student/teacher ratios ranged from a low of 11.8 students per teacher in Vermont to a high of 21.8 in Utah. The median student/teacher ratio was 15.0 (Oklahoma); that is, half the states had a student/teacher ratio greater than 15.0 and half had a lower ratio (derived from table 2). Student/teacher ratios should not be interpreted as average class size, because not all teachers are assigned to a class (e.g., music and art teachers who serve more than one class in elementary schools).

How many and what kinds of staff members worked in public elementary and secondary schools?

In addition to the teachers enumerated previously, an additional 2,904,864 staff members were employed in public schools (table 3). In the 2001–02 school year, a total of 674,906 instructional aides directly assisted teachers in providing instruction, and an additional 45,936 instructional coordinators and supervisors assisted teachers with activities such as curriculum development and in-service training. Teachers made up 50.8 percent of all staff in the 2001–02 school year, and instructional aides and supervisors made up an additional 12.2 percent of staff (figure 3). The percentage of all staff who were teachers ranged from 65.0 percent in South Carolina to 42.6 percent in Kentucky. Vermont had a relatively low percentage of teachers per staff (47.4 percent), the highest percentage of instructional aides (22.2 percent), and the lowest student/teacher ratio (11.8) (table 2).

Another 26.2 percent[3] of all staff (librarians, counselors, and other support staff) provided support services to schools and students (table 3 and figure 3). Staff members providing support included 100,052 guidance counselors and 54,349 librarians. This translates to 477 students for every guidance counselor reported, on average, and 877 students for each librarian (derived from tables 1 and 3). An additional 1.4 million staff members provided other support services for students. These services included food, health, library assistance, maintenance, transportation, security, and other services in the nation's public schools.

There were 160,806 school administrators (mostly principals and assistant principals), 63,351 school district administrators, and 412,911 school and district administrative support staff. Administrators and administrative support staff made up 10.8 percent of all education staff.

What was the racial/ethnic background of students enrolled in public schools?

In the 2001–02 school year, racial/ethnic data were reported for 47.4 million of the 47.7 million students enrolled in public elementary and secondary schools in the 50 states and the District of Columbia (table 4). White, non-Hispanic students made up the majority of students (60.3 percent[4]), followed by Black, non-Hispanic and Hispanic students (17.2 and 17.1 percent, respectively) (figure 4 and table 5). Asian/Pacific Islander students made up 4.2 percent and American Indian/Alaska Native students made up 1.2 percent of the public school population.

In six states (California, Hawaii, Louisiana, Mississippi, New Mexico, and Texas) and the District of Columbia, 50 percent or more of students were non-White (table 5). Black, non-Hispanic students made up more than 50 percent of all students in the District of Columbia and Mississippi. New Mexico reported 51.0 percent of its students as Hispanic, and Hawaii reported 72.3 percent of its student body as Asian/Pacific Islander. No state reported a majority of its public school student body as American Indian/Alaska Native, but in Alaska 25.5 percent of students were designated as American Indian/Alaska Native. Four states (Maine, New Hampshire, Vermont, and West Virginia) reported that over 90 percent of their students were White, non-Hispanic.

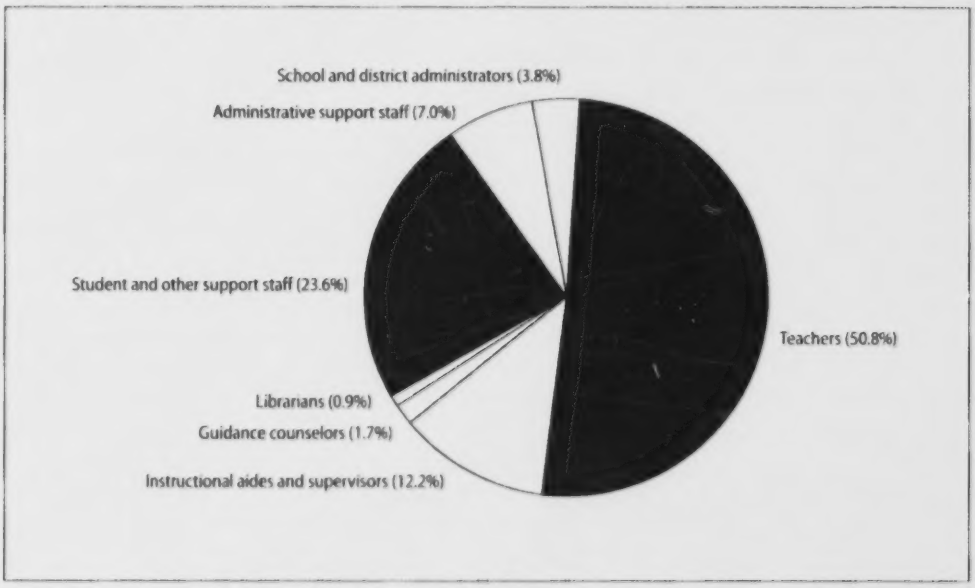
How many students graduated from high school during the 2000–01 school year?

Some 2.5 million students received high school diplomas in the 50 states and the District of Columbia during the 2000–01 school year and subsequent summer (table 6). Another 42,452 received other high school completion credentials (e.g., certificates of attendance). This total does not include data for New Hampshire or Wisconsin, which could not

[3]Percentages for categories shown in figure 3 may not sum to total because of rounding.

[4]Based on the 47.4 million students with reported racial/ethnic data (table 4).

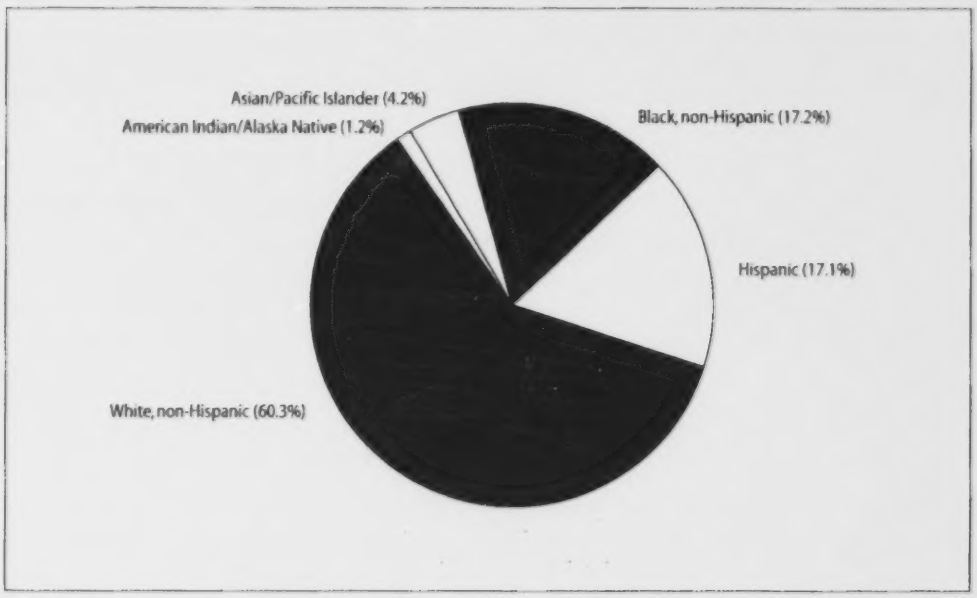
Figure 3. Percentage of public elementary and secondary staff, by type: School year 2001–02



NOTE: Detail may not sum to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Figure 4. Percentage of public elementary and secondary students, by race/ethnicity: School year 2001–02



NOTE: Detail may not sum to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

report this information. These high school completers only made up 1.7 percent of all high school completers (diploma recipients and other high school completers, not including high school equivalency recipients). There were additional students who earned a high school equivalency certificate (including GEDs and state equivalency tests); however, a national total cannot be computed, because a number of states did not report this data. Some states grant only diplomas and high school equivalency certificates and do not recognize any other types of high school completion. Because of this, diploma counts from different states are not necessarily comparable.

This report also presents the numbers of diploma recipients, other high school completers, and high school equivalency recipients by racial/ethnic group in tables 7, 8, and 9. Because not all states report these high school completer categories by race, national totals cannot be calculated.

How many students were educated in Department of Defense and Bureau of Indian Affairs schools?

Two federal offices, the DoD and the Department of the Interior, also administer public schools. The DoD administers schools inside and outside the boundaries of the United States for eligible minor dependents of DoD military and civilian personnel on official assignments. More than 100,000 students attended DoD schools in the 2001–02 school year (73,212 outside the United States and 32,847 inside the United States) (table 1). DoD schools employed 7,640 teachers, and had student/teacher ratios of 14.2 for schools outside the United States and 13.2 for those inside the United States (table 2). Over 50 percent of DoD school students were White, non-Hispanic (table 5). In the overseas schools, 19.1 percent were Black, non-Hispanic, 9.3 percent were Hispanic, and 9.1 percent were Asian/Pacific Islander. In the domestic schools, 25.8 percent were Black, non-Hispanic, 18.5 percent were Hispanic, and 3.5 percent were Asian/Pacific Islander.

Over 46,000 students attended the Department of the Interior BIA schools (table 1). The governance of BIA schools differs from that of the federal DoD schools. The Education Amendments Act of 1978 (P.L. 95–561) and further technical amendments (P.L. 98–511, 99–89, and 100–297) mandated major changes in BIA-funded schools. These amendments empowered Indian school boards, provided for local hiring of teachers and staff, and authorized the direct funding of schools. The BIA does not report the number of staff or graduate counts.

How many students were educated in outlying areas?

Five outlying areas participated in the CCD collection: American Samoa, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands. Puerto Rico educated 604,177 public school students and has more students than 24 states (table 1). The other four outlying areas were much smaller, with a combined total of just 77,148 students in the 2001–02 school year. Student/teacher ratios ranged from 14.1 students per teacher (Puerto Rico) to 20.2 (Northern Marianas), exhibiting a similar range as the 50 states and the District of Columbia (table 2). No outlying area had more than 2.0 percent White, non-Hispanic students in 2001–02 (table 5). Guam and the Northern Marianas reported that the majority of students are Asian/Pacific Islander, American Samoa reported that all students are Asian/Pacific Islander, and Puerto Rico reported that all students are Hispanic. (The Virgin Islands did not report teacher or racial/ethnic data.)

Data source: The Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

For technical information, see the complete report:

Young, B.A. (2003). *Public School Student, Staff, and Graduate Counts by State: School Year 2001–02* (NCES 2003–358).

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To obtain the complete report (NCES 2003–358), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Table 1. Public school student membership, by grade and state: School year 2001–02

State	Total student membership	Pre-kindergarten	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
United States	47,687,871[1]	866,969[1]	3,380,714	3,615,443	3,594,535	3,654,322	3,695,925	3,727,624
Alabama	737,294[1]	11,945[1]	54,148	58,102	56,877	58,654	58,929	59,698
Alaska	134,358	1,253	10,095	9,514	9,905	10,011	10,722	10,787
Arizona	922,180	6,624	72,119	73,938	73,478	72,702	74,270	74,464
Arkansas	449,805	1,623	34,981	34,084	33,604	33,779	35,216	35,774
California	6,248,610[1]	101,235[1]	457,165	488,311	491,610	488,633	485,301	491,274
Colorado	742,145	19,516	53,079	55,817	55,683	56,468	58,028	58,318
Connecticut	570,228	11,050	41,906	43,772	43,273	44,696	44,990	45,243
Delaware	115,555	586	7,615	9,079	9,053	9,215	9,069	8,901
District of Columbia	75,392[2]	4,105	5,203	5,751	5,752	5,845	5,561	5,515
Florida	2,500,478	57,038	177,225	187,725	188,894	192,757	196,952	197,495
Georgia	1,470,634	33,310	111,173	114,464	113,911	116,914	116,886	118,363
Hawaii	184,546	917	13,822	14,444	14,788	14,818	14,886	15,238
Idaho	246,521	2,341	17,869	17,940	18,017	18,490	18,974	19,130
Illinois	2,071,391	57,550	148,348	159,554	159,604	162,837	159,038	161,167
Indiana	996,133	6,147	72,344	79,149	76,645	77,856	79,008	80,295
Iowa	485,932	5,714	34,249	32,979	33,957	35,204	36,106	36,729
Kansas	470,205	2,032	30,104	33,909	33,599	33,949	34,932	35,437
Kentucky	654,363	32,407	45,781	51,967	47,247	47,247	49,288	49,791
Louisiana	731,328	17,199	53,323	58,309	56,310	57,534	62,290	54,935
Maine	205,586	1,333	13,709	14,243	14,374	15,038	15,883	16,186
Maryland	860,640	20,314	56,384	62,917	63,955	65,172	67,448	68,539
Massachusetts	973,140	20,666	68,565	75,103	73,435	75,379	76,597	77,570
Michigan	1,730,668	16,562	125,197	127,056	127,180	130,384	131,673	135,110
Minnesota	851,384	9,671	58,357	58,353	59,324	61,292	62,580	63,764
Mississippi	493,507	1,805	36,931	40,483	38,926	39,748	39,749	39,751
Missouri	909,792	18,515	64,104	64,975	65,722	69,032	71,928	71,816
Montana	151,947	506	10,069	10,558	10,531	10,915	11,602	11,684
Nebraska	285,095	5,064	20,234	20,127	20,091	20,679	21,160	21,543
Nevada	356,814	2,147	26,877	29,617	29,098	29,178	29,676	29,728
New Hampshire	206,847	1,830	9,599	15,875	15,563	15,776	16,612	16,756
New Jersey	1,341,656	19,751	89,533	100,691	98,632	101,065	101,038	101,724
New Mexico	320,260	3,499	22,137	23,937	23,897	24,810	25,163	25,755
New York	2,872,132	40,212	190,402	211,673	212,597	215,471	214,283	216,061
North Carolina	1,315,363	9,320	102,772	105,074	104,147	105,116	106,093	106,651
North Dakota	106,047	721	7,059	7,195	7,271	7,649	7,759	7,911
Ohio	1,830,985	23,856	121,772	137,238	135,161	140,225	140,849	144,015
Oklahoma	622,139	25,707	43,214	49,247	44,855	45,477	47,164	47,347
Oregon	551,480	462	38,085	41,020	40,515	41,418	42,726	44,020
Pennsylvania	1,821,627	2,537	118,183	132,738	132,935	137,393	140,722	144,619
Rhode Island	158,046	1,229	10,704	11,996	12,399	12,354	12,717	12,809
South Carolina	691,078	19,281	47,618	51,896	51,501	53,561	54,854	55,175
South Dakota	127,542	1,176	9,075	8,844	9,035	9,347	9,641	9,598
Tennessee	925,030[1]	14,987[1]	69,429	72,221	70,244	71,436	72,714	73,739
Texas	4,163,447	170,101	302,859	323,133	319,249	320,083	318,842	317,320
Utah	484,677	6,876	36,521	37,023	35,784	35,463	36,411	35,994
Vermont	101,179	2,567	6,289	6,780	7,005	7,214	7,468	7,799
Virginia	1,163,091	14,137	82,489	87,841	88,692	90,480	91,966	92,693
Washington	1,009,200	8,102	68,280	73,602	73,377	76,527	78,504	79,397
West Virginia	282,885	6,770	20,247	21,134	20,570	21,002	21,561	22,094
Wisconsin	879,361	24,673	57,469	58,174	60,059	61,655	63,509	65,101
Wyoming	88,128	†	6,002	5,871	6,204	6,374	6,587	6,801
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas								
DoD schools (overseas)	73,212	1,948	6,788	7,040	6,762	6,634	6,626	6,196
DoD schools (domestic)	32,847	2,855	3,824	3,755	3,435	3,208	3,009	2,729
Bureau of Indian Affairs	46,476	†	4,122	3,759	3,871	3,916	4,016	3,912
American Samoa	15,897	1,435	969	1,149	1,261	1,297	1,251	1,152
Guam	31,992	474	2,336	2,646	2,707	2,241	2,621	2,591
Northern Marianas	10,479	523	665	872	855	962	832	879
Puerto Rico	604,177	863	41,529	48,601	46,899	47,606	47,082	46,501
Virgin Islands	18,780	†	—	—	—	—	—	—

See footnotes at end of table.

Table 1. Public school student membership, by grade and state: School year 2001–02—Continued

State	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Ungraded
United States	3,770,057	3,721,862	3,618,837	4,012,770	3,528,573	3,174,203	2,863,083	456,011
Alabama	60,546	60,194	56,591	61,038	51,525	46,138	42,909	—
Alaska	10,941	10,967	10,702	11,734	10,147	9,240	8,340	0
Arizona	74,408	72,303	69,643	72,859	67,117	57,782	52,162	8,311
Arkansas	36,124	36,284	35,372	35,894	34,418	32,257	28,849	1,546
California	493,218	472,363	461,133	499,505	459,588	420,295	365,907	73,072
Colorado	58,213	57,494	56,540	62,756	54,862	50,459	44,912	0
Connecticut	45,879	45,254	43,954	46,621	41,778	37,511	34,301	†
Delaware	9,137	9,222	9,397	10,618	9,036	7,597	7,030	0
District of Columbia	4,945	4,261	3,662	4,012	3,584	3,119	2,815	4,319
Florida	202,978	202,100	194,250	248,764	172,935	150,752	130,613	†
Georgia	121,152	116,877	112,145	128,734	102,590	88,301	75,814	†
Hawaii	15,184	14,017	13,705	16,036	13,521	12,424	10,632	114
Idaho	19,698	19,372	19,592	19,923	19,074	18,473	17,628	0
Illinois	163,556	157,988	151,737	165,529	150,646	137,810	131,411	4,616
Indiana	80,588	79,863	76,999	78,945	73,024	67,649	62,913	4,708
Iowa	37,548	37,666	37,115	39,818	39,126	38,443	36,469	4,809
Kansas	36,336	35,844	36,120	38,621	37,083	34,645	33,221	14,373
Kentucky	49,718	48,961	47,019	53,583	46,656	41,876	37,160	5,662
Louisiana	55,222	58,494	61,115	57,164	48,767	45,994	41,611	3,061
Maine	16,756	17,223	17,347	16,689	16,155	14,813	13,410	2,427
Maryland	68,590	68,600	66,211	73,300	63,530	57,306	52,671	5,703
Massachusetts	78,815	78,147	75,219	80,394	69,692	64,105	59,453	†
Michigan	139,669	134,917	129,908	145,651	129,993	117,676	103,839	35,853
Minnesota	66,189	66,701	66,797	69,032	70,837	69,490	68,997	0
Mississippi	39,522	39,304	36,731	38,498	33,388	28,659	25,816	14,196
Missouri	71,587	71,290	69,677	75,156	69,519	63,408	57,727	5,336
Montana	12,200	12,087	12,389	13,004	12,757	12,083	11,307	255
Nebraska	22,239	21,759	21,757	23,855	22,824	22,084	21,679	†
Nevada	30,045	28,424	27,028	32,086	25,082	17,694	19,461	673
New Hampshire	17,422	17,314	17,111	17,646	16,156	15,175	13,309	703
New Jersey	102,400	101,679	97,127	98,784	91,065	83,286	76,271	78,610
New Mexico	25,423	25,403	25,012	28,816	25,843	21,907	18,658	0
New York	219,314	217,811	210,369	245,540	219,003	172,609	153,505	133,282
North Carolina	107,997	106,669	102,126	114,236	94,231	81,329	69,602	—
North Dakota	7,990	8,385	8,514	8,906	9,040	8,986	8,661	0
Ohio	145,029	145,388	141,218	155,727	139,530	131,413	117,683	11,881
Oklahoma	47,558	47,198	45,745	49,034	45,877	41,575	38,638	3,503
Oregon	44,784	43,986	42,988	45,067	44,268	41,403	38,379	2,359
Pennsylvania	147,884	147,957	146,138	159,919	147,555	133,282	122,942	6,823
Rhode Island	13,172	12,945	12,458	13,538	11,631	10,587	9,507	0
South Carolina	52,856	57,301	55,939	64,700	49,751	40,588	36,057	0
South Dakota	10,028	10,049	9,997	10,629	10,562	9,834	9,454	273
Tennessee	73,413	72,738	68,184	74,322	66,409	58,383	51,278	15,533
Texas	317,578	316,287	310,762	366,895	293,235	260,674	226,429	—
Utah	36,113	35,538	35,786	35,029	36,118	35,923	34,951	11,147
Vermont	8,059	8,146	7,972	8,595	8,137	7,633	7,422	93
Virginia	94,724	92,725	88,184	100,599	86,814	78,877	70,607	2,263
Washington	80,858	79,677	77,933	86,396	81,650	75,361	69,536	†
West Virginia	22,241	22,252	21,650	23,328	21,392	19,801	18,336	507
Wisconsin	67,208	67,398	66,558	77,802	73,512	70,297	65,946	0
Wyoming	7,003	7,040	7,211	7,443	7,540	7,197	6,855	0
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas								
DoD schools (overseas)	6,037	5,734	4,985	4,663	3,801	3,323	2,675	†
DoD schools (domestic)	2,539	1,840	1,631	1,212	934	719	593	564
Bureau of Indian Affairs	3,821	3,928	3,676	3,828	3,095	2,423	2,109	†
American Samoa	1,151	1,160	1,086	1,141	1,029	930	838	48
Guam	2,661	2,545	2,311	3,494	2,412	1,414	1,539	†
Northern Marianas	813	781	779	861	737	434	432	54
Puerto Rico	48,204	50,768	46,410	45,056	44,521	37,615	32,699	19,823
Virgin Islands	—	—	—	—	—	—	—	—

—Not available.

†Not applicable.

[1]Data imputed based on current-year (fall 2001) data.

[2]District of Columbia membership includes 6,943 charter school students for which grade enrollment is not known.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 2. Public school student/teacher ratio, student membership, and teachers, by level of instruction and state: School year 2001–02

State	Total student/ teacher ratio	Total student membership	Total teachers	Pre-kindergarten teachers	Kindergarten teachers	Elementary teachers	Secondary teachers	Teachers of ungraded classes
United States	15.9	47,687,871[2]	2,997,741[4]	42,239[2]	152,892	1,492,901	1,079,197	232,654
Alabama	15.8	737,294[2]	46,796	722[2]	3,748	23,028	19,298	†
Alaska	16.7	134,358	8,026	67	172	4,945	2,842	†
Arizona	20.0	922,180	46,015	168	1,683	31,131	13,033	†
Arkansas	13.6	449,805	33,079	131	2,075	10,221	15,678	4,974
California	20.5	6,248,610[2]	304,296	11,578[2]	23,545	191,685	77,488	—
Colorado	16.8	742,145	44,182	601	2,680	19,300	21,601	0
Connecticut	13.7	570,228	41,773	151	1,602	22,630	12,305	5,085
Delaware	15.3	115,555	7,571	12	218	3,548	3,793	0
District of Columbia	13.8[1]	75,392	4,951	218	269	2,125	1,599	740
Florida	18.6	2,500,478	134,684	877	7,094	50,269	52,204	24,240
Georgia	15.9	1,470,634	92,732	2,170	5,326	46,354	38,882	†
Hawaii	16.8	184,546	11,007	182	487[3]	5,302[3]	5,000	36
Idaho	17.8	246,521	13,854	98	498	6,481	6,777	†
Illinois	16.0	2,071,391	129,600	1,017	4,395	72,096	32,161	19,931
Indiana	16.7	996,133	59,658	423	2,528	28,203	25,782	2,723
Iowa	13.9	485,932	34,906	421	2,298	18,657	12,479	1,051
Kansas	14.2	470,205	33,084	326	1,199	13,249	14,791	3,519
Kentucky	16.2	654,363	40,375	436	4,309	12,659	15,947	7,025
Louisiana	14.6	731,328	49,980	516	2,581	31,886	14,742	255
Maine	12.3	205,586	16,741	230[3]	936[3]	10,152[3]	5,423	—
Maryland	16.0	860,640	53,774	595	2,009	29,708	21,462	—
Massachusetts	14.1	973,140	68,942	493[3]	2,001[3]	21,709[3]	33,655	11,084
Michigan	17.5	1,730,668	98,849	1,140	4,009	36,970	44,028	12,702
Minnesota	16.0	851,384	53,081	1,195	2,040	24,463	25,364	19
Mississippi	15.8	493,507	31,213	254	1,751	13,663	11,088	4,458
Missouri	13.9	909,792	65,240	1,349	3,314	28,425	31,659	493
Montana	14.6	151,947	10,408	142[3]	576[3]	6,254[3]	3,436	†
Nebraska	13.5	285,095	21,083	256[3]	1,039[3]	11,268[3]	8,350	170[3]
Nevada	18.5	356,814	19,276	256	618	8,831	6,937	2,634
New Hampshire	14.1	206,847	14,677	105	355	9,724	4,493	—
New Jersey	12.9	1,341,656	103,611	227	3,854	54,972	28,172	16,386
New Mexico	14.7	320,260	21,823	282	1,224	11,117	4,837	4,363
New York	13.7	2,872,132	209,128	2,223	11,690	94,420	69,480	31,315
North Carolina	15.4	1,315,363	85,684	870	5,590	45,031	29,999	4,194
North Dakota	13.2	106,047	8,035	112	275	4,374	3,274	0
Ohio	15.0	1,830,985	122,115	1,560	4,173	75,720	40,497	165
Oklahoma	14.9	622,139	41,632	738	1,634	17,096	17,863	4,301
Oregon	19.4	551,480	28,402	51	1,154	13,917	8,068	5,212
Pennsylvania	15.4	1,821,627	118,470	1,101[3]	4,471[3]	48,504[3]	48,595	15,799
Rhode Island	14.2	158,046	11,103	20	258	4,399	4,657	1,770
South Carolina	14.8	691,078	46,616	579	2,106	30,043	13,158	731
South Dakota	13.6	127,542	9,370	110	373	5,219	2,646	1,022
Tennessee	15.9	925,030	58,357	316[2]	3,825	37,424	15,735	1,058
Texas	14.7	4,163,447	282,846	5,550	15,925	117,988	110,911	32,473
Utah	21.8	484,677	22,211	184	885	9,633	9,088	2,421
Vermont	11.8	101,179	8,554	66	314	2,875	3,053	2,246
Virginia	13.0	1,163,091	89,314	884	3,383	47,912	37,135	—
Washington	19.2	1,009,200	52,534	52	2,107	24,545	21,078	4,752
West Virginia	14.0	282,885	20,139	199	1,101	8,877	6,759	3,203
Wisconsin	14.4	879,361	60,918	986	2,971	40,933	18,420	0
Wyoming	12.5	88,128	7,026	†	224	2,966	3,475	104
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas								
DoD schools (overseas)	14.2	73,212	5,154	70	270	1,653	1,737	1,424
DoD schools (domestic)	13.2	32,847	2,486	93	183	885	520	805
Bureau of Indian Affairs	—	46,476	—	—	—	—	—	—
American Samoa	17.4	15,897	914	130	38	473	254	19
Guam	16.7	31,992	1,918	13	102	724	771	308
Northern Marianas	20.2	10,479	519	4	18	286	208	3
Puerto Rico	14.1	604,177	42,906	87	1,234	22,633	16,469	2,483
Virgin Islands	—	18,780	—	†	—	—	—	—

—Not available.

†Not applicable.

[1]The District of Columbia student/teacher ratio does not include the 6,943 charter school students for which no teachers were reported.

[2]Data imputed based on current-year (fall 2001) data.

[3]Data disaggregated from reported total.

[4]Total teachers in each state may not add to detail due to rounding, missing detail (Wyoming), or duplicate reporting in the detail (Wisconsin).

NOTE: Teacher counts are full-time-equivalent (FTE) counts. Elementary and secondary teacher counts are not directly comparable across states due to differences in the grades included in these designations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 3. Number of staff employed by public elementary and secondary school systems and percentage of total staff, by category and state: School year 2001–02

State	Total staff	Teachers		Instructional aides		Instructional coordinators and supervisors		Guidance counselors	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	5,902,916[1]	2,997,741[2]	50.8	675,038[1]	11.4	45,934[1]	0.8	100,052	1.7
Alabama	88,171[1]	46,796[2]	53.1	6,122	6.9	676	0.8	1,658	1.9
Alaska	16,729	8,026	48.0	2,481	14.8	154[1]	0.9	275	1.6
Arizona	93,976	46,015	49.0	13,179	14.0	145	0.2	1,215	1.3
Arkansas	66,578	33,079	49.7	6,170	9.3	601	0.9	1,459	2.2
California	574,559[1]	304,296[2]	53.0	72,554	12.6	6,510	1.1	6,438	1.1
Colorado	87,582	44,182	50.4	10,383	11.9	879	1.0	1,277	1.5
Connecticut	84,884	41,773	49.2	11,857	14.0	386	0.5	1,279	1.5
Delaware	14,172	7,571	53.4	1,332	9.4	166	1.2	240	1.7
District of Columbia	11,391	4,951	43.5	1,508	13.2	19	0.2	241	2.1
Florida	282,696	134,684	47.6	31,206	11.0	666	0.2	5,547	2.0
Georgia	190,054	92,732	48.8	22,625	11.9	1,210	0.6	3,219	1.7
Hawaii	19,464	11,007	56.6	1,671	8.6	500	2.6	646	3.3
Idaho	24,773	13,854	55.9	2,632	10.6	288	1.2	593	2.4
Illinois	255,719[1]	129,600	50.7	32,955[1]	12.9	1,295	0.5	2,983	1.2
Indiana	128,938	59,658	46.3	18,337	14.2	1,552	1.2	1,831	1.4
Iowa	69,504	34,906	50.2	8,887	12.8	467	0.7	1,230	1.8
Kansas	65,155	33,084	50.8	7,153	11.0	136	0.2	1,173	1.8
Kentucky	94,826	40,375	42.6	14,302	15.1	742	0.8	1,481	1.6
Louisiana	101,552	49,980	49.2	11,094	10.9	1,303	1.3	3,264	3.2
Maine	34,072	16,741	49.1	5,705	16.7	198	0.6	643	1.9
Maryland	99,282	53,774	54.2	9,361	9.4	863	0.9	2,161	2.2
Massachusetts	125,625[1]	68,942	54.9	17,452	13.9	2,633	2.1	2,472	2.0
Michigan	214,894	98,849	46.0	25,592	11.9	1,244	0.6	3,136	1.5
Minnesota	104,741	53,081	50.7	14,440	13.8	466	0.4	1,056	1.0
Mississippi	65,154	31,213	47.9	8,561	13.1	592	0.9	952	1.5
Missouri	124,756	65,240	52.3	11,154	8.9	941	0.8	2,673	2.1
Montana	19,501[1]	10,408	53.4	2,417[1]	12.4	155	0.8	429	2.2
Nebraska	40,541	21,083	52.0	4,479	11.0	350	0.9	777	1.9
Nevada	33,967	19,276	56.7	2,652	7.8	185	0.5	693	2.0
New Hampshire	29,141	14,677	50.4	5,759	19.8	178[2]	0.6	748	2.6
New Jersey	193,337	103,611	53.6	21,474	11.1	1,558	0.8	3,551	1.8
New Mexico	44,941	21,823	48.6	5,301	11.8	216	0.5	781	1.7
New York	423,199	209,128	49.4	41,660	9.8	2,081	0.5	6,241	1.5
North Carolina	166,164	85,684	51.6	27,665	16.6	883	0.5	3,370	2.0
North Dakota	14,896	8,035	53.9	1,702	11.4	121	0.8	274	1.8
Ohio	230,007	122,115	53.1	14,886	6.5	489	0.2	3,537	1.5
Oklahoma	76,405	41,632	54.5	6,594	8.6	199	0.3	1,609	2.1
Oregon	57,473	28,402	49.4	8,467	14.7	435	0.8	1,243	2.2
Pennsylvania	229,238	118,470	51.7	24,065	10.5	1,460	0.6	4,183	1.8
Rhode Island	18,583	11,103	59.7	2,301	12.4	64	0.3	348	1.9
South Carolina	71,732[1]	46,616	65.0	10,995[1]	15.3	609	0.8	1,722	2.4
South Dakota	18,512	9,370	50.6	2,162	11.7	383	2.1	323	1.7
Tennessee	111,926[1]	58,357	52.1	12,661	11.3	1,094[2]	1.0	1,854	1.7
Texas	582,555	282,846	48.6	58,283	10.0	1,517	0.3	9,713	1.7
Utah	41,111	22,211	54.0	5,496	13.4	622	1.5	666	1.6
Vermont	18,050	8,554	47.4	4,007	22.2	278	1.5	399	2.2
Virginia	165,249	89,314	54.0	15,725	9.5	1,770	1.1	3,408	2.1
Washington	112,021	52,534	46.9	10,044	9.0	4,636	4.1	1,966	1.8
West Virginia	37,676	20,139	53.5	3,087	8.2	334	0.9	665	1.8
Wisconsin	113,525	60,918	53.7	12,780	11.3	1,581	1.4	2,049	1.8
Wyoming	13,919	7,026	50.5	1,663	11.9	104	0.7	361	2.6
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas									
DoD schools (overseas)	7,889	5,154	65.3	532	6.7	140	1.8	234	3.0
DoD schools (domestic)	4,321	2,486	57.5	419	9.7	53	1.2	108	2.5
Bureau of Indian Affairs	—	—	—	—	—	—	—	—	—
American Samoa	1,686	914	54.2	132	7.8	36	2.1	48	2.8
Guam	3,765	1,918	50.9	700	18.6	156	4.1	29	0.8
Northern Marianas	1,019	519	50.9	198	19.4	5	0.5	13	1.3
Puerto Rico	75,254	42,906	57.0	229	0.3	305	0.4	1,003	1.3
Virgin Islands	—	—	—	—	—	—	—	—	—

See footnotes at end of table.

Table 3. Number of staff employed by public elementary and secondary school systems and percentage of total staff, by category and state: School year 2001–02—Continued

State	Librarians		Student/other support staff[4]		School administrators		School district administrators		Administrative support staff[5]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	54,349	0.9	1,392,677[1]	23.6	160,806	2.7	63,351	1.1	412,968[1]	7.0
Alabama	1,332	1.5	23,678	26.9	3,307	3.8	1,241	1.4	3,361	3.8
Alaska	147	0.9	3,093	18.5	804	4.8	273	1.6	1,476	8.8
Arizona	811	0.9	22,941	24.4	2,140	2.3	386	0.4	7,144	7.6
Arkansas	1,016	1.5	18,553	27.9	1,734	2.6	673	1.0	3,293	4.9
California	1,396	0.2	111,808[2]	19.5	13,225	2.3	2,711	0.5	55,621	9.7
Colorado	852	1.0	20,295	23.2	2,289	2.6	932	1.1	6,493	7.4
Connecticut	767	0.9	20,439	24.1	2,205	2.6	1,312	1.5	4,866	5.7
Delaware	124	0.9	3,365	23.7	359	2.5	262	1.8	753	5.3
District of Columbia	119	1.0	3,583	31.5	279	2.4	49	0.4	642	5.6
Florida	2,667	0.9	71,093	25.1	6,516	2.3	1,715	0.6	28,602	10.1
Georgia	2,114	1.1	51,922	27.3	4,755	2.5	1,764	0.9	9,713	5.1
Hawaii	289	1.5	3,642	18.7	517	2.7	139	0.7	1,053	5.4
Idaho	188	0.8	5,042	20.4	715	2.9	122	0.5	1,339	5.4
Illinois	1,934	0.8	59,350[1]	23.2	6,315	2.5	3,963	1.5	17,324[3]	6.8
Indiana	1,065	0.8	34,952	27.1	2,950	2.3	985	0.8	7,608	5.9
Iowa	647	0.9	15,419	22.2	2,197	3.2	980	1.4	4,771	6.9
Kansas	975	1.5	16,515	25.3	1,754	2.7	1,258	1.9	3,107	4.8
Kentucky	1,147	1.2	24,043	25.4	2,461	2.6	1,214	1.3	9,061	9.6
Louisiana	1,201	1.2	27,904	27.5	2,585	2.5	398	0.4	3,823	3.8
Maine	241	0.7	7,236[2]	21.2	916	2.7	560	1.6	1,832[2]	5.4
Maryland	1,112	1.1	23,373	23.5	3,023	3.0	899	0.9	4,716	4.8
Massachusetts	823	0.7	20,190	16.1	2,577	2.1	654	0.5	9,882[3]	7.9
Michigan	1,612	0.8	66,854	31.1	5,574	2.6	2,084	1.0	9,949	4.6
Minnesota	1,015	1.0	21,448[2]	20.5	2,052	2.0	1,909	1.8	9,274	8.9
Mississippi	956	1.5	16,387	25.2	1,706	2.6	969	1.5	3,818	5.9
Missouri	1,621	1.3	25,865[2]	20.7	2,996	2.4	1,254	1.0	13,012[2]	10.4
Montana	359	1.8	3,808[1]	19.5	504	2.6	150	0.8	1,271[1]	6.5
Nebraska	565	1.4	9,623	23.7	994	2.5	572	1.4	2,098	5.2
Nevada	317	0.9	7,540	22.2	972	2.9	272	0.8	2,060	6.1
New Hampshire	286	1.0	5,307[2]	18.2	521	1.8	476	1.6	1,189[2]	4.1
New Jersey	1,858	1.0	38,613	20.0	4,790	2.5	1,855	1.0	16,027	8.3
New Mexico	283	0.6	10,922	24.3	1,017	2.3	1,250	2.8	3,348	7.4
New York	3,180	0.8	117,681	27.8	7,915	1.9	2,954	0.7	32,359	7.6
North Carolina	2,289	1.4	39,919	24.0	4,681	2.8	1,601	1.0	72	0.0
North Dakota	198	1.3	3,260	21.9	391	2.6	431	2.9	484	3.2
Ohio	1,630	0.7	51,310	22.3	5,308	2.3	6,203	2.7	24,529	10.7
Oklahoma	1,043	1.4	17,110	22.4	2,043	2.7	723	0.9	5,452	7.1
Oregon	582	1.0	11,002	19.1	1,664	2.9	804	1.4	4,874	8.5
Pennsylvania	2,217	1.0	57,294	25.0	4,418	1.9	1,578	0.7	15,553	6.8
Rhode Island	61	0.3	2,721	14.6	444	2.4	199	1.1	1,342	7.2
South Carolina	1,123	1.6	1,562[1]	2.2	3,053	4.3	272	0.4	5,780[1]	8.1
South Dakota	167	0.9	4,446	24.0	427	2.3	438	2.4	796	4.3
Tennessee	1,506	1.3	23,550[2]	21.0	4,819	4.3	1,117	1.0	6,968[2]	6.2
Texas	4,719	0.8	153,550	26.4	28,779	4.9	7,956	1.4	35,192	6.0
Utah	311	0.8	7,953	19.3	997	2.4	167	0.4	2,688	6.5
Vermont	229	1.3	3,085	17.1	422	2.3	146	0.8	930	5.2
Virginia	2,040	1.2	36,003	21.8	4,034	2.4	2,779	1.7	10,176	6.2
Washington	1,321	1.2	31,036	27.7	2,709	2.4	1,163	1.0	6,612	5.9
West Virginia	393	1.0	9,465	25.1	1,063	2.8	339	0.9	2,191	5.8
Wisconsin	1,383	1.2	23,849	21.0	2,567	2.3	949	0.8	7,449	6.6
Wyoming	118	0.8	3,078	22.1	323	2.3	251	1.8	995	7.1
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas										
DoD schools (overseas)	156	2.0	646	8.2	276	3.5	39	0.5	712	9.0
DoD schools (domestic)	70	1.6	685	15.9	120	2.8	36	0.8	344	8.0
Bureau of Indian Affairs	—	—	—	—	—	—	—	—	—	—
American Samoa	6	0.4	271	16.1	78	4.6	37	2.2	164	9.7
Guam	13	0.3	215	5.7	55	1.5	20	0.5	659	17.5
Northern Marianas	0	0	144	14.1	31	3.0	9	0.9	100	9.8
Puerto Rico	1,006	1.3	22,122	29.4	1,484	2.0	1,602	2.1	4,597	6.1
Virgin Islands	—	—	—	—	—	—	—	—	—	—

—Not available.

[1]Data imputed based on current-year (fall 2001) data.

[2]Data disaggregated from reported total.

[3]Data imputed based on prior-year (fall 2000) data.

[4]Student/other support services include library support staff, student support services staff, and all other nonadministrative support staff.

[5]Administrative support staff includes district- and school-level administrative support staff.

NOTE: All staff counts are full-time-equivalent (FTE) counts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 4. Public school membership, by race/ethnicity and state: School year 2001–02

State	Students reported[1]	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
United States	47,440,514	561,799	2,010,685	8,103,281	8,152,385	28,612,364
Alabama	725,349[1]	5,357	5,869	11,108	264,506	438,509
Alaska	134,358	34,210	7,870	4,812	6,254	81,212
Arizona	922,180	60,404	19,361	325,661	43,551	473,203
Arkansas	449,805	2,300	4,159	18,672	104,951	319,723
California	6,108,071[1]	53,314	686,074	2,717,602	512,996	2,138,085
Colorado	742,145	8,710	22,131	172,940	42,361	496,003
Connecticut	570,228	1,677	16,878	77,966	78,826	394,881
Delaware	115,555	325	2,807	7,600	35,900	68,923
District of Columbia	68,449[1]	32	1,121	6,427	57,751	3,118
Florida	2,500,478	6,916	48,079	511,247	621,569	1,312,667
Georgia	1,470,634	2,437	34,812	80,776	561,354	791,255
Hawaii	184,546	794	133,408	8,384	4,469	37,491
Idaho	246,521	3,238	3,279	27,633	1,908	210,463
Illinois	2,071,391	3,535	71,667	335,535	439,478	1,221,176
Indiana	996,133	2,388	10,212	38,943	117,857	826,733
Iowa	485,932	2,638	8,344	19,523	19,955	435,472
Kansas	470,205	6,286	10,316	45,929	42,023	365,651
Kentucky	621,956[1]	1,312	4,287	6,920	63,808	545,629
Louisiana	731,328	4,765	9,311	11,358	349,550	356,344
Maine	205,586	1,373	2,279	1,324	2,826	197,784
Maryland	860,640	3,111	39,401	46,251	320,489	451,388
Massachusetts	973,140	3,165	44,148	105,053	83,642	737,132
Michigan	1,730,668	18,014	34,493	62,754	345,575	1,269,832
Minnesota	851,384	17,145	44,273	31,935	59,924	698,107
Mississippi	493,507	769	3,566	4,208	251,728	233,236
Missouri	909,792	2,948	11,100	18,337	159,059	718,348
Montana	151,947	16,121	1,560	2,835	962	130,469
Nebraska	285,095	4,452	4,502	23,459	19,594	233,088
Nevada	356,814	6,158	21,648	97,782	36,737	194,489
New Hampshire	206,847	505	3,016	4,255	2,539	196,532
New Jersey	1,341,656	2,390	88,558	214,546	239,554	796,608
New Mexico	320,260	36,137	3,413	163,378	7,534	109,798
New York	2,872,132	12,461	178,495	534,527	571,850	1,574,799
North Carolina	1,315,363	19,336	25,245	68,957	412,192	789,633
North Dakota	106,047	8,587	872	1,431	1,138	94,019
Ohio	1,804,123[1]	2,382	21,429	33,447	301,480	1,445,385
Oklahoma	622,139	108,800	9,051	40,373	67,334	396,581
Oregon	540,813[1]	11,707	22,641	62,392	16,061	428,012
Pennsylvania	1,821,627	2,386	37,945	87,219	279,256	1,414,821
Rhode Island	158,046	897	5,098	23,336	12,782	115,933
South Carolina	688,258[1]	1,674	6,879	16,187	286,819	376,699
South Dakota	127,542	13,004	1,256	1,744	1,635	109,903
Tennessee	909,856[1]	1,487	10,575	18,940	225,717	653,137
Texas	4,163,447	12,776	116,229	1,735,040	598,223	1,701,179
Utah	484,677	7,456	13,646	47,940	4,934	410,701
Vermont	101,179	556	1,524	1,013	1,166	96,920
Virginia	1,163,091	3,261	50,094	63,950	315,105	730,681
Washington	1,009,200	26,452	75,916	110,468	54,589	741,775
West Virginia	282,885	297	1,567	1,173	12,386	267,462
Wisconsin	879,361	12,520	29,488	43,621	89,293	704,439
Wyoming	88,128	2,834	793	6,370	1,195	76,936
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas						
DoD schools (overseas)	56,571[1]	547	5,131	5,262	10,809	34,822
DoD schools (domestic)	27,741[1]	170	965	5,137	7,158	14,311
Bureau of Indian Affairs[2]	46,476	46,476	0	0	0	0
American Samoa[2]	15,897	0	15,897	0	0	0
Guam	31,992	20	31,310	75	104	483
Northern Marianas	10,479	0	10,429	0	6	44
Puerto Rico[2]	604,177	0	0	604,177	0	0
Virgin Islands	18,780	—	—	—	—	—

—Not available.

[1]Totals exclude students for whom race/ethnicity was not reported.

[2]American Samoa, Puerto Rico, and the BIA reported all of their students in one category of race/ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001-02.

Table 5. Percentage of public school membership by race/ethnicity and state: School year 2001–02

State	Total reported[1]	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
United States	100.0	1.2	4.2	17.1	17.2	60.3
Alabama	100.0	0.7	0.8	1.5	36.5	60.5
Alaska	100.0	25.5	5.9	3.6	4.7	60.4
Arizona	100.0	6.6	2.1	35.3	4.7	51.3
Arkansas	100.0	0.5	0.9	4.2	23.3	71.1
California	100.0	0.9	11.2	44.5	8.4	35.0
Colorado	100.0	1.2	3.0	23.3	5.7	66.8
Connecticut	100.0	0.3	3.0	13.7	13.8	69.2
Delaware	100.0	0.3	2.4	6.6	31.1	59.6
District of Columbia	100.0	0.0	1.6	9.4	84.4	4.6
Florida	100.0	0.3	1.9	20.4	24.9	52.5
Georgia	100.0	0.2	2.4	5.5	38.2	53.8
Hawaii	100.0	0.4	72.3	4.5	2.4	20.3
Idaho	100.0	1.3	1.3	11.2	0.8	85.4
Illinois	100.0	0.2	3.5	16.2	21.2	59.0
Indiana	100.0	0.2	1.0	3.9	11.8	83.0
Iowa	100.0	0.5	1.7	4.0	4.1	89.6
Kansas	100.0	1.3	2.2	9.8	8.9	77.8
Kentucky	100.0	0.2	0.7	1.1	10.3	87.7
Louisiana	100.0	0.7	1.3	1.6	47.8	48.7
Maine	100.0	0.7	1.1	0.6	1.4	96.2
Maryland	100.0	0.4	4.6	5.4	37.2	52.4
Massachusetts	100.0	0.3	4.5	10.8	8.6	75.7
Michigan	100.0	1.0	2.0	3.6	20.0	73.4
Minnesota	100.0	2.0	5.2	3.8	7.0	82.0
Mississippi	100.0	0.2	0.7	0.9	51.0	47.3
Missouri	100.0	0.3	1.2	2.0	17.5	79.0
Montana	100.0	10.6	1.0	1.9	0.6	85.9
Nebraska	100.0	1.6	1.6	8.2	6.9	81.8
Nevada	100.0	1.7	6.1	27.4	10.3	54.5
New Hampshire	100.0	0.2	1.5	2.1	1.2	95.0
New Jersey	100.0	0.2	6.6	16.0	17.9	59.4
New Mexico	100.0	11.3	1.1	51.0	2.4	34.3
New York	100.0	0.4	6.2	18.6	19.9	54.8
North Carolina	100.0	1.5	1.9	5.2	31.3	60.0
North Dakota	100.0	8.1	0.8	1.3	1.1	88.7
Ohio	100.0	0.1	1.2	1.9	16.7	80.1
Oklahoma	100.0	17.5	1.5	6.5	10.8	63.7
Oregon	100.0	2.2	4.2	11.5	3.0	79.1
Pennsylvania	100.0	0.1	2.1	4.8	15.3	77.7
Rhode Island	100.0	0.6	3.2	14.8	8.1	73.4
South Carolina	100.0	0.2	1.0	2.4	41.7	54.7
South Dakota	100.0	10.2	1.0	1.4	1.3	86.2
Tennessee	100.0	0.2	1.2	2.1	24.8	71.8
Texas	100.0	0.3	2.8	41.7	14.4	40.9
Utah	100.0	1.5	2.8	9.9	1.0	84.7
Vermont	100.0	0.5	1.5	1.0	1.2	95.8
Virginia	100.0	0.3	4.3	5.5	27.1	62.8
Washington	100.0	2.6	7.5	10.9	5.4	73.5
West Virginia	100.0	0.1	0.6	0.4	4.4	94.5
Wisconsin	100.0	1.4	3.4	5.0	10.2	80.1
Wyoming	100.0	3.2	0.9	7.2	1.4	87.3
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas						
DoD schools (overseas)	100.0	1.0	9.1	9.3	19.1	61.6
DoD schools (domestic)	100.0	0.6	3.5	18.5	25.8	51.6
Bureau of Indian Affairs[2]	100.0	100.0	0.0	0.0	0.0	0.0
American Samoa[2]	100.0	0.0	100.0	0.0	0.0	0.0
Guam	100.0	0.1	97.9	0.2	0.3	1.5
Northern Marianas	100.0	0.0	99.5	0.0	0.1	0.4
Puerto Rico[2]	100.0	0.0	0.0	100.0	0.0	0.0
Virgin Islands	—	—	—	—	—	—

— Not available.

[1]Totals exclude students for whom race/ethnicity was not reported.

[2]American Samoa, Puerto Rico, and the BIA reported all of their students in one category of race/ethnicity.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

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Table 6. Number of public high school completers, by state: School year 2000–01

State	Total high school completers	Diploma recipients	Other high school completers	High school equivalency recipients[2]
United States	—	2,568,956	42,452[1]	—
Alabama	42,899	37,082	2,531	3,286
Alaska	8,273	6,812	17	1,444
Arizona	—	46,773	770	—
Arkansas	33,406	27,100	1,919	4,387
California	—	315,189	†	—
Colorado	45,592	39,241	129	6,222
Connecticut	31,631	30,388	54	1,189
Delaware	6,984	6,614	98	272
District of Columbia	—	2,808	235	—
Florida	132,167	111,112	4,898	16,157
Georgia	—	62,499	6,716	—
Hawaii	—	10,102	221	—
Idaho	—	15,941	80	—
Illinois	—	110,624	†	—
Indiana	—	56,172	2,135	—
Iowa	38,324	33,774	135	4,415
Kansas	—	29,360	†	—
Kentucky	—	36,957	336	—
Louisiana	43,707	38,314	982	4,411
Maine	12,982	12,654	19	309
Maryland	—	49,222	347	—
Massachusetts	—	54,393	†	—
Michigan	97,923	96,515	634	774
Minnesota	63,500	56,581	†	6,919
Mississippi	26,160	23,748	2,014	398
Missouri	59,866	54,138	99	5,629
Montana	12,207	10,628	†	1,579
Nebraska	—	19,658	174	—
Nevada	18,133	15,127	680	2,326
New Hampshire	—	12,294	—	1,224
New Jersey	78,609	76,130	†	2,479
New Mexico	20,675	18,199	155	2,321
New York	165,239	141,884	5,421	17,934
North Carolina	71,319	63,288	666	7,365
North Dakota	10,623	8,445	†	2,178
Ohio	117,389	111,281	†	6,108
Oklahoma	47,578	37,458	†	10,120
Oregon	40,570	29,939	3,182	7,449
Pennsylvania	124,735	114,436	†	10,299
Rhode Island	9,330	8,603	14	713
South Carolina	—	29,742	835	—
South Dakota	—	8,881	†	—
Tennessee	—	40,642	4,021	—
Texas	216,700	215,316	†	1,384
Utah	34,309	31,036	160	3,113
Vermont	6,904	6,856	20	28
Virginia	74,846	66,067	2,526	6,253
Washington	57,522	55,081	155	2,286
West Virginia	20,103	18,440	12	1,651
Wisconsin	—	59,341	—	9,105
Wyoming	—	6,071	62	—
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas				
DoD schools (overseas)	2,621	2,621	†	—
DoD schools (domestic)	568	568	†	—
Bureau of Indian Affairs	—	—	—	—
American Samoa	781	722	2	57
Guam	—	1,371	†	—
Northern Marianas	—	361	—	—
Puerto Rico	45,755	30,154	2,420	13,181
Virgin Islands	—	966	—	—

—Not available.

†Not applicable.

[1]Includes individuals who receive certificates of attendance or some other credential in lieu of diplomas. Total other high school completers does not include New Hampshire and Wisconsin.

[2]Includes recipients age 19 or younger, except in Minnesota, where they are age 20 or younger.

NOTE: High school completer categories may include students not included in 12th-grade membership in the 2000–01 school year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 7. Public diploma recipients, by race/ethnicity and state: School year 2000–01

State	Total reported by race/ethnicity	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
Alabama	37,082	437	348	238	11,986	24,073
Alaska	6,812	1,286	429	173	246	4,678
Arizona	—	—	—	—	—	—
Arkansas	27,100	119	302	528	5,697	20,454
California	315,189	2,734	46,958	103,795	22,474	139,228
Colorado	39,241	305	1,250	5,321	1,681	30,684
Connecticut	30,388	66	961	2,563	3,369	23,429
Delaware	6,479[1]	15	195	208	1,661	4,400
District of Columbia	2,808	3	72	215	2,401	117
Florida	111,112	288	3,068	17,943	23,608	66,205
Georgia	62,499	82	1,988	1,281	19,795	39,353
Hawaii	10,102	33	7,534	441	177	1,917
Idaho	15,941	133	224	973	70	14,541
Illinois	110,624	172	4,889	10,855	15,498	79,210
Indiana	56,172	95	621	1,304	4,358	49,794
Iowa	33,774	212	684	582	678	31,618
Kansas	29,360	271	702	1,323	1,844	25,220
Kentucky	36,957	40	269	232	2,995	33,421
Louisiana	38,314	208	678	509	15,046	21,873
Maine	12,654	75	121	79	84	12,295
Maryland	49,222	145	2,488	1,708	16,155	28,726
Massachusetts	54,393	105	2,517	3,845	4,222	43,704
Michigan	96,515	875	1,989	2,139	12,060	79,452
Minnesota	56,581	643	2,468	916	1,840	50,714
Mississippi	23,748	16	190	87	11,158	12,297
Missouri	54,138	134	753	711	6,824	45,716
Montana	10,628	689	108	169	33	9,629
Nebraska	19,658	139	311	762	827	17,619
Nevada	15,127	249	998	2,331	1,201	10,348
New Hampshire	—	—	—	—	—	—
New Jersey	76,130	204	5,370	9,402	11,507	49,647
New Mexico	18,199	1,996	236	7,954	426	7,587
New York	141,884	494	10,124	16,317	20,594	94,355
North Carolina	63,288	761	1,334	1,264	16,810	43,119
North Dakota	8,445	373	48	54	47	7,923
Ohio	110,861[1]	123	1,509	1,378	11,645	96,206
Oklahoma	37,458	5,906	751	1,492	3,243	26,066
Oregon	29,732[1]	448	1,269	1,629	604	25,782
Pennsylvania	114,436	62	2,567	2,961	11,915	96,931
Rhode Island	8,603	38	273	769	546	6,977
South Carolina	—	—	—	—	—	—
South Dakota	8,881	334	83	65	41	8,358
Tennessee	—	—	—	—	—	—
Texas	215,316	574	7,218	69,595	28,295	109,634
Utah	31,036	348	768	1,527	184	28,209
Vermont	—	—	—	—	—	—
Virginia	66,067	145	3,311	2,342	14,930	45,339
Washington	55,081	1,068	4,675	3,495	2,157	43,686
West Virginia	18,440	17	131	54	665	17,573
Wisconsin	59,341	547	1,567	1,557	2,835	52,835
Wyoming	6,071	98	63	279	53	5,578
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas						
DoD schools (overseas)	2,119	0	362	175	422	1,160
DoD schools (domestic)	535	0	25	199	117	194
Bureau of Indian Affairs	—	—	—	—	—	—
American Samoa	722	0	722	0	0	0
Guam	1,349	0	1,319	3	3	24
Northern Marianas	361	0	360	0	0	1
Puerto Rico	30,154	0	0	30,154	0	0
Virgin Islands	966	3	4	79	875	5

—Not available.

[1]Total excludes students for whom race/ethnicity was not reported.

NOTE: National totals are not presented for this table because of data not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 8. Other public high school completers, by race/ethnicity and state: School year 2000–01

State	Total reported by race/ethnicity	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
Alabama	2,531	20	9	23	1,316	1,163
Alaska	17	5	1	1	0	10
Arizona	—	—	—	—	—	—
Arkansas	1,919	9	8	33	524	1,345
California	†	†	†	†	†	†
Colorado	129	0	9	25	1	94
Connecticut	54	0	1	15	15	23
Delaware	90[1]	0	1	7	24	58
District of Columbia	235	0	0	5	222	8
Florida	4,898	13	99	1,311	2,274	1,201
Georgia	6,716	11	148	213	4,291	2,053
Hawaii	221	4	170	11	3	33
Idaho	80	0	6	14	0	60
Illinois	†	†	†	†	†	†
Indiana	2,135	2	35	119	503	1,476
Iowa	135	4	6	7	4	114
Kansas	†	†	†	†	†	†
Kentucky	336	0	0	0	18	318
Louisiana	982	3	5	5	665	304
Maine	19	0	0	2	0	17
Maryland	347	2	7	17	147	174
Massachusetts	†	†	†	†	†	†
Michigan	634	2	22	34	48	528
Minnesota	†	†	†	†	†	†
Mississippi	2,014	1	5	2	1,333	673
Missouri	99	1	0	2	19	77
Montana	†	†	†	†	†	†
Nebraska	174	5	4	14	15	136
Nevada	680	12	43	269	171	185
New Hampshire	—	—	—	—	—	—
New Jersey	†	†	†	†	†	†
New Mexico	155	31	4	72	2	46
New York	5,421	30	132	864	1,346	3,049
North Carolina	—	—	—	—	—	—
North Dakota	†	†	†	†	†	†
Ohio	†	†	†	†	†	†
Oklahoma	†	†	†	†	†	†
Oregon	3,157[1]	60	152	368	134	2,443
Pennsylvania	†	†	†	†	†	†
Rhode Island	14	0	0	2	1	11
South Carolina	—	—	—	—	—	—
South Dakota	†	†	†	†	†	†
Tennessee	—	—	—	—	—	—
Texas	†	†	†	†	†	†
Utah	160	13	5	13	5	124
Vermont	—	—	—	—	—	—
Virginia	2,526	7	34	64	583	1,838
Washington	155	7	5	10	8	125
West Virginia	12	0	0	0	2	10
Wisconsin	—	—	—	—	—	—
Wyoming	62	1	7	4	1	49
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas						
DoD schools (overseas)	†	†	†	†	†	†
DoD schools (domestic)	†	†	†	†	†	†
Bureau of Indian Affairs	—	—	—	—	—	—
American Samoa	2	0	2	0	0	0
Guam	†	†	†	†	†	†
Northern Marianas	—	—	—	—	—	—
Puerto Rico	2,420	0	0	2,420	0	0
Virgin Islands	—	—	—	—	—	—

—Not available.

†Not applicable.

[1]Total excludes students for whom race/ethnicity was not reported.

NOTE: National totals are not presented for this table because of data not available. Other high school completers includes individuals who receive certificates of attendance or some other credential in lieu of diplomas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 9. High school equivalency recipients, by race/ethnicity and state: School year 2000–01

State	Total reported by race/ethnicity	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
Alabama	—	—	—	—	—	—
Alaska	1,444	314	51	0	58	1,021
Arizona	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—
California	—	—	—	—	—	—
Colorado	6,222	125	133	1,453	325	4,186
Connecticut	1,189	10	13	186	162	818
Delaware	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—
Florida	16,157	128	184	2,477	1,435	11,933
Georgia	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—
Idaho	—	—	—	—	—	—
Illinois	—	—	—	—	—	—
Indiana	—	—	—	—	—	—
Iowa	4,415	62	49	238	565	3,501
Kansas	—	—	—	—	—	—
Kentucky	—	—	—	—	—	—
Louisiana	4,411	80	39	185	759	3,348
Maine	309	1	1	3	5	299
Maryland	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—
Michigan	774	9	16	28	94	627
Minnesota	—	—	—	—	—	—
Mississippi	398	0	0	3	135	260
Missouri	5,629	59	27	127	633	4,783
Montana	1,579	221	10	76	14	1,258
Nebraska	—	—	—	—	—	—
Nevada	2,326	73	82	452	168	1,551
New Hampshire	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—
New Mexico	—	—	—	—	—	—
New York	—	—	—	—	—	—
North Carolina	7,365	133	69	240	1,679	5,244
North Dakota	2,178	636	17	72	52	1,401
Ohio	—	—	—	—	—	—
Oklahoma	9,803[1]	1,338	46	802	952	6,665
Oregon	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—
Rhode Island	713	9	43	93	59	509
South Carolina	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—
Texas	1,384	7	16	480	185	696
Utah	3,113	84	62	413	61	2,493
Vermont	—	—	—	—	—	—
Virginia	6,253	47	120	316	1,143	4,627
Washington	2,286	93	97	209	120	1,767
West Virginia	—	—	—	—	—	—
Wisconsin	—	—	—	—	—	—
Wyoming	—	—	—	—	—	—
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas						
DoD schools (overseas)	—	—	—	—	—	—
DoD schools (domestic)	—	—	—	—	—	—
Bureau of Indian Affairs	—	—	—	—	—	—
American Samoa	57	0	57	0	0	0
Guam	—	—	—	—	—	—
Northern Marianas	—	—	—	—	—	—
Puerto Rico	13,181	0	0	13,181	0	0
Virgin Islands	—	—	—	—	—	—

—Not available.

[1]Total excludes students for whom race/ethnicity was not reported.

NOTE: National totals are not presented for this table because of data not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

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Table 10. Public school student membership and total teachers, by state: School years 1991–92 and 2001–02

State	Total student membership			Total teachers		
	1991–92	2001–02	Percent change from 1991–92 to 2001–02	1991–92	2001–02	Percent change from 1991–92 to 2001–02
United States	42,760,411	47,687,871[1]	11.5	2,473,715	2,997,741[1]	21.2
Alabama	722,004	737,294[1]	2.1	40,480	46,796[1]	15.6
Alaska	118,680	134,358	13.2	7,118	8,026	12.8
Arizona	656,980	922,180	40.4	33,978	46,015	35.4
Arkansas	438,518	449,805	2.6	25,785	33,079	28.3
California	5,107,145	6,248,610[1]	22.4	224,000	304,296[1]	35.8
Colorado	593,030	742,145	25.1	33,093	44,182	33.5
Connecticut	481,050	570,228	18.5	34,383	41,773	21.5
Delaware	102,196	115,555	13.1	6,095	7,571	24.2
District of Columbia	80,618	75,392	–6.5	6,346	4,951	–22.0
Florida	1,932,131	2,500,478	29.4	109,939	134,684	22.5
Georgia	1,177,569	1,470,634	24.9	63,816	92,732	45.3
Hawaii	174,747	184,546	5.6	9,451	11,007	16.5
Idaho	225,680	246,521	9.2	11,626	13,854	19.2
Illinois	1,848,166	2,071,391	12.1	110,153	129,600	17.7
Indiana	956,988	996,133	4.1	54,509	59,658	9.4
Iowa	491,363	485,932	–1.1	31,395	34,906	11.2
Kansas	445,390	470,205	5.6	29,324	33,084	12.8
Kentucky	646,024	654,363	1.3	37,571	40,375	7.5
Louisiana	794,128	731,328	–7.9	46,170	49,980	8.3
Maine	216,400	205,586	–5.0	15,416	16,741	8.6
Maryland	736,238	860,640	16.9	43,616	53,774	23.3
Massachusetts	846,155	973,140	15.0	55,963	68,942	23.2
Michigan	1,593,561	1,730,668	8.6	82,967	98,849	19.1
Minnesota	773,571	851,384	10.1	44,903	53,081	18.2
Mississippi	504,127	493,507	–2.1	28,111	31,213	11.0
Missouri	842,965	909,792	7.9	52,643	65,240	23.9
Montana	155,779	151,947	–2.5	9,883	10,408	5.3
Nebraska	279,552	285,095	2.0	19,069	21,083	10.6
Nevada	211,810	356,814	68.5	11,409	19,276	69.0
New Hampshire	177,138	206,847	16.8	11,464	14,677	28.0
New Jersey	1,109,796	1,341,656	20.9	80,515	103,611	28.7
New Mexico	308,667	320,260	3.8	17,498	21,823	24.7
New York	2,643,993	2,872,132	8.6	171,914	209,128	21.6
North Carolina	1,097,598	1,315,363	19.8	65,326	85,684	31.2
North Dakota	118,376	106,047	–10.4	7,733	8,035	3.9
Ohio	1,783,767	1,830,985	2.6	103,372	122,115	18.1
Oklahoma	588,263	622,139	5.8	37,650	41,632	10.6
Oregon	498,614	551,480	10.6	26,745	28,402	6.2
Pennsylvania	1,692,797	1,821,627	7.6	100,475	118,470	17.9
Rhode Island	142,144	158,046	11.2	9,709	11,103	14.4
South Carolina	627,470	691,078	10.1	37,115	46,616	25.6
South Dakota	131,576	127,542	–3.1	8,868	9,370	5.7
Tennessee	833,651	925,030[1]	11.0	43,062	58,357	35.5
Texas	3,464,371	4,163,447	20.2	219,192	282,846	29.0
Utah	456,430	484,677	6.2	18,305	22,211	21.3
Vermont	97,137	101,179	4.2	7,031	8,554	21.7
Virginia	1,016,204	1,163,091	14.5	64,537	89,314	38.4
Washington	869,327	1,009,200	16.1	42,931	52,534	22.4
West Virginia	320,249	282,885	–11.7	20,997	20,139	–4.1
Wisconsin	814,671	879,361	7.9	52,028	60,918	17.1
Wyoming	102,074	88,128	–13.7	6,564	7,026	7.0
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas						
DoD schools (overseas)	—	73,212	—	—	5,154	—
DoD schools (domestic)	—	32,847	—	—	2,486	—
Bureau of Indian Affairs	—	46,476	—	—	—	—
American Samoa	13,365	15,897	18.9	671	914	36.2
Guam	28,334	31,992	12.9	1,499	1,918	28.0
Northern Marianas	7,096	10,479	47.7	430	519	20.7
Puerto Rico	642,392	604,177	–5.9	37,291	42,906	15.1
Virgin Islands	22,346	18,780	–16.0	1,581	—	—

— Not available.

[1]Data imputed based on current-year (fall 2001) data.

NOTE: Teacher counts are full-time-equivalent (FTE) counts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1991–92 and 2001–02.

Overview of Public Elementary and Secondary Schools and Districts: School Year 2001–02

Lee M. Hoffman

This article was originally published as a Statistical Analysis Report. The universe data are primarily from the following two components of the Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey." Technical notes, definitions, and supplemental tables from the original report have been omitted.

This report summarizes information about public elementary and secondary schools and local education agencies in the United States during the 2001–02 school year. The information is provided by state education agencies through the Common Core of Data (CCD) survey system.

Types of Public Schools and Agencies

States reported 94,112 public elementary/secondary schools in the 2001–02 school year (table A).* This was an increase of more than 11 percent over the 84,578 schools reported in the fall of 1991. (Comparisons with 1991 are based on table 89 in Snyder and Hoffman [2002].) Most of these were regular schools, those that offer a comprehensive curriculum and may provide other programs and services as well. A smaller number of schools focused primarily on special education, vocational/technical education, or alternative programs. Students in these specialized schools were often enrolled in a regular school as well and were reported as part of the membership of either the regular or the special school, but not both. Note that two-thirds of the vocational schools identified in table A, as well as smaller proportions of other types of schools, do not report students in membership.

Among the 91,380 schools that reported students in membership, 98 percent were regular schools (derived from table 1). The second largest category with student membership was that of alternative education schools (1 percent), followed by special education schools and vocational schools (0.4 percent each).

School districts and other types of agencies

Most local education agencies are those that are typically thought of as "school districts." Operated by a local school board, they provide instructional services for students and comprised 85 percent of local agencies in 2001–02 (table 2). A smaller proportion, 8 percent, were supervisory unions or regional education service agencies whose major responsibility is to offer administrative, special program, testing, or other services to school districts. Finally, around 7 percent of the reported agencies were operated directly by a state or federal government agency or were other than any of the preceding categories. The number of regular school districts decreased by 4 percent from the 15,173 reported in 1991 to a total of 14,559 in 2001–02.

Charter school districts

The governance of charter schools varies from state to state. In some cases they are not considered under the administration of the regular public school district within whose boundaries they operate. In these cases, each charter school is reported on the CCD with its own local education agency. These agencies are reported under the category of "other agencies." For example, in the District of Columbia the establishment of 33 charter schools explains why the District is shown with 34 total agencies in table 2. Fully 960 of the other agencies shown in table 2 are charter school districts.

Student Membership

In the 2001–02 school year, 91,380 public schools provided instruction to 47.7 million students in the United

*CCD respondents include the 50 states, the District of Columbia, the Department of Defense dependents schools, the Bureau of Indian Affairs, and the five outlying areas (American Samoa, Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, and the U.S. Virgin Islands). Totals in this report are limited to the 50 states and the District of Columbia, referred to collectively as "the states."

Table A. Public elementary and secondary schools in the United States: 2001–02

	Total	Regular	Special	Vocational	Alternative
Total schools in United States	94,112	85,619	1,987	1,023	5,483
Reporting students	91,380	84,919	1,641	328	4,492
Not reporting students	2,732	700	346	695	991

NOTE: Data include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2001–02.

States (table 1). Five states (California, Florida, Illinois, New York, and Texas) each enrolled more than 2 million students in their public schools. At the other end of the size distribution, the District of Columbia and Wyoming reported fewer than 100,000 students.

Most of the 2001–02 students, 98 percent, were reported enrolled in regular schools. One percent were in alternative schools. Special education or vocational schools each accounted for less than one-half of 1 percent of students. Kansas, Mississippi, New Hampshire, North Dakota, and Oklahoma reported only regular schools.

Instructional Level

Schools come in all combinations of grades. To allow comparisons across states, instructional level is determined in this report by the lowest and highest grade in a school. Among the 91,380 schools with membership during the 2001–02 school year, 58 percent spanned the primary grades, beginning with prekindergarten or kindergarten and going no higher than grade 8 (table 3). The proportion of students who were enrolled in primary schools averaged 49 percent across all states, ranging from 42 percent in Alaska to 59 percent in the District of Columbia.

Middle schools, those with grade spans ranging from as low as grade 4 to as high as grade 9, made up 17 percent of schools with students. High schools (low grade of 7 or higher, high grade of 12) accounted for an additional 19 percent of schools. Some 6 percent of schools had a grade configuration that did not fit into any of these three categories.

A total of 14,229 regular school districts were reported to have students in membership for 2001–02 (table 4). As with the instructional levels of schools, grade span categories of school districts were assigned by the lowest and highest grades offered. Approximately 75 percent of school districts included the comprehensive range of grades from prekindergarten, kindergarten, or grade 1 to 9 or higher, and they accounted for 92 percent of all public school students. These comprehensive school districts accounted for all, or all but one, of the districts in 17 states. (In fact, only in Arizona, Illinois, Montana, and Vermont did as many as one-third of the students attend school districts with other grade spans.) A little more than 5 percent of students were in districts with no grade higher than 8, and about 2 percent were in secondary districts with no grade lower than 7. Less than 1 percent of students were enrolled in districts with some other range of grades.

School and School District Size

Primary schools tended to be smaller than middle and high schools (table 5). The average number of students in a primary school was 441 in 2001–02. Middle schools served, on average, 612 students each, while the average-size high school had 753 students. There was considerable range in school size across the states. High schools ranged from an average of fewer than 300 students in Montana, North Dakota, and South Dakota to more than 1,500 students in Florida.

Student/teacher ratios were higher in primary schools, which had a median number of 16.0 students for each teacher, than in middle or high schools, which had a median number of 15.7 and 15.1 students per teacher, respectively (table 6). (The median is the point at which half the schools had larger student/teacher ratios and half had smaller. Note also that student/teacher ratio is not the same as average class size, since not all teachers are assigned to a classroom.) The median number of primary students for each teacher ranged from a low of fewer than 13.0 in Montana, Nebraska, North Dakota, South Dakota, Vermont, and Wyoming to a high of 21.5 in Utah.

Twenty-five school districts enrolled 100,000 or more students, while 1,692 districts served fewer than 150 students (table 7). While few in number, the larger districts included a considerable portion of the students in America's schools. Although less than 2 percent of school districts reported 25,000 or more students, one-third (33 percent) of students attended school in these districts. At the other end of the size range, more than one-third of school districts had fewer than 600 students, but these districts accounted for only 3 percent of public school enrollment.

Other School Characteristics

The majority of schools, 57 percent, were in large or midsize cities or their accompanying urban fringe areas (table 8). These schools accounted for more than two-thirds (69 percent) of all public school students. About 1 of every 6 students was in a large city school in 2001–02; a smaller proportion, about 1 in 10, attended a rural school that was not within a metropolitan statistical area (MSA).

Title I schools

Table 9 shows the number of Title I eligible schools by state, and the number of these schools that have schoolwide Title I programs. Three states did not indicate which of their schools were eligible for Title I services. Among those states that could provide this information, the District of Columbia,

Kentucky, Mississippi, Montana, and South Dakota reported that more than 7 out of 10 public school students were in Title I eligible schools. In the District of Columbia, Mississippi, and Texas, more than half of the students were enrolled in schools with schoolwide Title I programs.

Magnet schools

States were asked to identify magnet schools. Forty-five states were able to report magnet school information (table 9). Of these, 28 states had at least one magnet school, 2 states reported no magnet schools, and an additional 13 reported that the category of magnet schools was not applicable in their state. Two of the 45 states reported magnet status for less than 80 percent of their schools and are not included in this distribution. California and Illinois reported the greatest number of magnet schools, 456 and 420, respectively. Illinois served 15 percent of its students in magnet schools; in California, the figure was 9 percent.

Charter schools

Thirty-nine states (including the District of Columbia) recognized charter schools in 2001–02. Of this group, 37 reported having one or more charter schools in operation (table 9). The number of schools ranged from a single charter school in Indiana, Maine, and Mississippi to more than 300 in Arizona and California. In the District of Columbia, charter schools enrolled almost 9 percent of all public school students.

Student Program Participation and Selected Characteristics

Nationally, 13 percent of public school students had special education Individualized Education Programs (IEPs) in 2001–02 (table 10). Among those states reporting students with IEPs, the proportion ranged from 10 percent in Colorado to 20 percent in Rhode Island.

Some 47 states (including the District of Columbia) reported the number of students who were English Language Learners (ELLs) and receiving English language services. In California, there were 1.5 million ELL service recipients (one-fourth of all students) in 2001–02, while Texas reported more than half a million (one in seven students) receiving ELL services.

Forty-one states (including the District of Columbia) provided information about the number of migrant students enrolled during the 2000–01 school year or the following summer. Because a single migrant student may enroll in several schools during the year, this is a duplicated count of students. Therefore, table 10 cannot estimate the proportion of students who were migrants. California reported the greatest number of migrant students served when regular school year and summer program participants were combined, almost 331,000.

All but four states reported the number of students eligible for free or reduced-price meals. More than half of all students were eligible for this program in the District of Columbia, Louisiana, Mississippi, New Mexico, and West Virginia. The largest numbers of students eligible for free or reduced-price meals were in California, Texas, and New York, with 2.9, 1.9, and 1.2 million eligible students, respectively.

Table 11 shows the distribution of minority students (all groups except White, non-Hispanic) across cities, urban fringe areas, and small towns or rural communities in 2001–02. Across the United States, about 39 percent of public school students were members of minority groups. Sixty-three percent of students in large or midsize city schools were minority students, while only 21 percent of students in small town and rural schools were. In the large or midsize city schools of nine states and the District of Columbia, three-fourths or more of students were minority group members. The proportion was highest in the District of Columbia, where 87 percent of students were minority members. Small town and rural schools tended to have smaller proportions of minority students, but this was not the case for all states. In the small town and rural schools of Arizona, Hawaii, Mississippi, and New Mexico, half or more of the students were minority group members. (The District of Columbia is not included in this list because it operates only a single school that can be classified as "small town or rural.")

Reference

Snyder, T.D., and Hoffman, C.M. (2002). *Digest of Education Statistics: 2001* (NCES 2002–130). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Data sources: The following components of the NCES Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey," 2001–02; "Local Education Agency Universe Survey," 2001–02; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

For technical information, see the complete report:

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Table 1. Number of public elementary and secondary schools with membership and percentage of students in membership, by type of school and by state: School year 2001–02

State	Number of schools having membership	Total students	Type of school							
			Regular		Special education		Vocational education		Alternative education	
			Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students
United States	91,380	47,687,871	84,919	98.1	1,641	0.4	328	0.4	4,492	1.1
Alabama	1,381	737,294	1,334	99.6	18	0.1	2	#	27	0.3
Alaska	506	134,358	473	97.8	2	0.2	1	#	30	2.0
Arizona	1,742	922,180	1,652	98.0	13	0.1	9	0.5	68	1.3
Arkansas	1,129	449,805	1,125	99.9	0	0.0	0	0.0	4	0.1
California	8,914	6,248,610	7,667	96.7	122	0.5	0	0.0	1,125	2.8
Colorado	1,630	742,145	1,535	98.5	14	0.1	2	#	79	1.4
Connecticut	1,073	570,228	992	96.4	23	0.7	17	1.9	41	1.0
Delaware	197	115,555	170	92.6	13	1.3	5	4.8	9	1.3
District of Columbia	193	75,392	178	94.6	10	4.2	0	0.0	5	1.2
Florida	3,314	2,500,478	2,992	98.4	122	0.6	25	0.1	175	0.8
Georgia	1,969	1,470,634	1,940	99.5	1	#	0	0.0	28	0.4
Hawaii	279	184,546	275	99.9	3	0.1	0	0.0	1	0.1
Idaho	654	246,521	589	98.2	5	0.1	0	0.0	60	1.7
Illinois	4,292	2,071,391	3,913	98.0	253	1.2	0	0.0	126	0.8
Indiana	1,891	996,133	1,832	99.5	11	0.1	0	0.0	48	0.4
Iowa	1,519	485,932	1,473	98.8	10	0.2	0	0.0	36	1.0
Kansas	1,423	470,205	1,423	100.0	0	0.0	0	0.0	0	0.0
Kentucky	1,387	654,363	1,228	99.0	9	0.1	2	#	148	0.9
Louisiana	1,509	731,328	1,378	97.6	28	0.2	0	0.0	103	2.2
Maine	681	205,586	678	100.0	3	#	0	0.0	0	0.0
Maryland	1,340	860,640	1,241	97.5	50	0.9	12	1.1	37	0.6
Massachusetts	1,889	973,140	1,811	96.1	1	#	43	3.4	34	0.5
Michigan	3,782	1,730,668	3,495	98.1	90	0.7	12	0.1	185	1.1
Minnesota	2,119	851,384	1,606	96.8	195	1.2	1	#	317	2.0
Mississippi	886	493,507	886	100.0	0	0.0	0	0.0	0	0.0
Missouri	2,274	909,792	2,158	99.4	55	0.4	0	0.0	61	0.3
Montana	870	151,947	863	99.8	2	#	0	0.0	5	0.1
Nebraska	1,280	285,095	1,229	99.3	51	0.7	0	0.0	0	0.0
Nevada	517	356,814	471	98.4	12	0.3	1	0.5	33	0.9
New Hampshire	472	206,847	472	100.0	0	0.0	0	0.0	0	0.0
New Jersey	2,410	1,341,656	2,271	97.7	83	0.7	38	1.2	18	0.4
New Mexico	792	320,260	720	97.6	15	0.6	0	0.0	57	1.8
New York	4,298	2,872,132	4,162	97.7	26	0.1	25	1.1	85	1.0
North Carolina	2,223	1,315,363	2,127	99.4	20	0.2	1	#	75	0.4
North Dakota	529	106,047	529	100.0	0	0.0	0	0.0	0	0.0
Ohio	3,826	1,830,985	3,700	96.6	28	0.2	68	3.1	30	0.2
Oklahoma	1,814	622,139	1,814	100.0	0	0.0	0	0.0	0	0.0
Oregon	1,273	551,480	1,193	98.6	11	0.1	0	0.0	69	1.3
Pennsylvania	3,185	1,821,627	3,144	98.2	12	1.1	16	0.7	13	0.1
Rhode Island	326	158,046	313	98.2	4	0.4	4	0.7	5	0.7
South Carolina	1,053	691,078	1,047	99.9	5	0.1	0	0.0	1	#
South Dakota	749	127,542	720	99.0	4	0.1	0	0.0	25	0.9
Tennessee	1,610	925,030	1,574	99.6	15	0.1	3	0.1	18	0.1
Texas	7,646	4,163,447	6,715	98.4	133	0.1	25	0.1	773	1.4
Utah	791	484,677	719	98.2	19	0.4	0	0.0	53	1.4
Vermont	359	101,179	315	98.7	42	1.2	0	0.0	2	0.1
Virginia	1,839	1,163,091	1,793	99.3	10	0.1	0	0.0	36	0.6
Washington	2,170	1,009,200	1,834	96.6	79	0.3	10	0.1	247	3.1
West Virginia	784	282,885	752	99.6	7	0.1	5	#	20	0.3
Wisconsin	2,208	879,361	2,035	97.7	12	0.1	1	#	160	2.2
Wyoming	383	88,128	363	98.1	0	0	0	0.0	20	1.9

See footnotes at end of table.

Table 1. Number of public elementary and secondary schools with membership and percentage of students in membership, by type of school and by state: School year 2001–02—Continued

State	Number of schools having membership	Total students	Type of school							
			Regular		Special education		Vocational education		Alternative education	
			Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas										
DoD schools (overseas)	154	73,212	154	100.0	0	0.0	0	0.0	0	0.0
DoD schools (domestic)	70	32,847	70	100.0	0	0.0	0	0.0	0	0.0
Bureau of Indian Affairs	177	46,476	177	100.0	0	0.0	0	0.0	0	0.0
American Samoa	31	15,897	29	97.6	1	0.3	1	2.1	0	0.0
Guam	38	31,992	38	100.0	0	0.0	0	0.0	0	0.0
Northern Marianas	29	10,479	29	100.0	0	0.0	0	0.0	0	0.0
Puerto Rico	1,530	604,177	1,469	96.1	29	1.7	14	1.0	18	1.2
Virgin Islands	35	18,780	33	99.3	0	0.0	0	0.0	2	0.7

#Rounds to zero.

NOTE: Table excludes 2,753 schools (21 of these in outlying areas) for which no students were reported in membership. U.S. totals include the 50 states and the District of Columbia. Although type of school is a mutually exclusive category, many regular schools include special, vocational, or alternative education programs. Detail may not sum to totals because of rounding. Total student membership is reported from the "State Nonfiscal Survey of Public Elementary/Secondary Education."

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey," 2001–02; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Table 2. Number and percentage of public elementary and secondary education agencies, by type of agency and by state: School year 2001–02

State	Total agencies	Regular school districts[1]		Regional education service agencies & supervisory union administrative centers		State-operated agencies		Other agencies[2]	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	17,085	14,559	85.2	1,302	7.6	158	0.9	1,066	6.2
Alabama	131	128	97.7	0	0.0	3	2.3	0	0.0
Alaska	55	53	96.4	0	0.0	2	3.6	0	0.0
Arizona	513	323	63.0	6	1.2	2	0.4	182	35.5
Arkansas	338	312	92.3	15	4.4	3	0.9	8	2.4
California	1,056	986	93.4	58	5.5	12	1.1	0	0.0
Colorado	200	178	89.0	22	11.0	0	0.0	0	0.0
Connecticut	197	166	84.3	6	3.0	7	3.6	18	9.1
Delaware	30	19	63.3	1	3.3	0	0.0	10	33.3
District of Columbia	34	1	2.9	0	0.0	0	0.0	33	97.1
Florida	73	67	91.8	0	0.0	1	1.4	5	6.8
Georgia	180	180	100.0	0	0.0	0	0.0	0	0.0
Hawaii	1	1	100.0	0	0.0	0	0.0	0	0.0
Idaho	115	114	99.1	0	0.0	1	0.9	0	0.0
Illinois	1,060	893	84.2	162	15.3	5	0.5	0	0.0
Indiana	326	294	90.2	28	8.6	3	0.9	1	0.3
Iowa	386	371	96.1	15	3.9	0	0.0	0	0.0
Kansas	304	304	100.0	0	0.0	0	0.0	0	0.0
Kentucky	196	176	89.8	18	9.2	2	1.0	0	0.0
Louisiana	88	66	75.0	0	0.0	8	9.1	14	15.9
Maine	325	282	86.8	39	12.0	3	0.9	1	0.3
Maryland	24	24	100.0	0	0.0	0	0.0	0	0.0
Massachusetts	479	350	73.1	86	18.0	1	0.2	42	8.8
Michigan	799	554	69.3	57	7.1	4	0.5	184	23.0
Minnesota	485	417	86.0	63	13.0	5	1.0	0	0.0
Mississippi	162	152	93.8	0	0.0	10	6.2	0	0.0
Missouri	530	524	98.9	0	0.0	2	0.4	4	0.8
Montana	531	452	85.1	77	14.5	2	0.4	0	0.0
Nebraska	671	555	82.7	111	16.5	5	0.7	0	0.0
Nevada	18	17	94.4	0	0.0	1	5.6	0	0.0
New Hampshire	257	178	69.3	79	30.7	0	0.0	0	0.0
New Jersey	665	603	90.7	12	1.8	0	0.0	50	7.5
New Mexico	89	89	100.0	0	0.0	0	0.0	0	0.0
New York	787	703	89.3	38	4.8	0	0.0	46	5.8
North Carolina	212	121	57.1	0	0.0	2	0.9	89	42.0
North Dakota	263	222	84.4	38	14.4	3	1.1	0	0.0
Ohio	817	662	81.0	60	7.3	3	0.4	92	11.3
Oklahoma	566	543	95.9	0	0.0	0	0.0	23	4.1
Oregon	221	198	89.6	21	9.5	2	0.9	0	0.0
Pennsylvania	695	501	72.1	101	14.5	15	2.2	78	11.2
Rhode Island	41	36	87.8	0	0.0	1	2.4	4	9.8
South Carolina	103	89	86.4	14	13.6	0	0.0	0	0.0
South Dakota	199	176	88.4	18	9.0	5	2.5	0	0.0
Tennessee	138	138	100.0	0	0.0	0	0.0	0	0.0
Texas	1,254	1,040	82.9	20	1.6	14	1.1	180	14.4
Utah	46	40	87.0	4	8.7	2	4.3	0	0.0
Vermont	354	292	82.5	60	16.9	1	0.3	1	0.3
Virginia	199	137	68.8	38	19.1	23	11.6	1	0.5
Washington	305	296	97.0	9	3.0	0	0.0	0	0.0
West Virginia	57	55	96.5	0	0.0	2	3.5	0	0.0
Wisconsin	452	433	95.8	16	3.5	3	0.7	0	0.0
Wyoming	58	48	82.8	10	17.2	0	0.0	0	0.0

See footnotes at end of table.

Table 2. Number and percentage of public elementary and secondary education agencies, by type of agency and by state: School year 2001–02—Continued

State	Total agencies	Regular school districts[1]		Regional education service agencies & supervisory union administrative centers		State-operated agencies		Other agencies[2]	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas									
DoD schools (overseas)	9	0	0.0	0	0.0	0	0.0	9	100.0
DoD schools (domestic)	17	0	0.0	0	0.0	0	0.0	17	100.0
Bureau of Indian Affairs	24	0	0.0	0	0.0	0	0.0	24	100.0
American Samoa	1	1	100.0	0	0.0	0	0.0	0	0.0
Guam	1	1	100.0	0	0.0	0	0.0	0	0.0
Northern Marianas	1	1	100.0	0	0.0	0	0.0	0	0.0
Puerto Rico	1	1	100.0	0	0.0	0	0.0	0	0.0
Virgin Islands	1	1	100.0	0	0.0	0	0.0	0	0.0

[1]Regular school districts include those that are components of supervisory unions.

[2]DoD and Bureau of Indian Affairs agencies are federal agencies, as is one additional agency in Virginia. Charter school agencies make up 960 of the other agencies. For example, the District of Columbia reports each charter school as a separate agency.

NOTE: Detail may not sum to totals because of rounding. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2001–02.

Table 3. Percentage of public elementary and secondary schools and percentage of students in membership, by instructional level and by state: School year 2001–02

State	Number of schools having membership	Percentage by instructional level							
		Primary		Middle		High		Other	
		Schools	Students	Schools	Students	Schools	Students	Schools	Students
United States	91,380	57.5	48.8	17.3	20.3	19.2	27.8	6.1	3.1
Alabama	1,381	50.8	43.7	16.6	18.2	20.1	25.6	12.5	12.5
Alaska	506	34.4	42.2	7.1	13.0	13.8	24.5	44.7	20.3
Arizona	1,742	57.2	55.0	13.7	16.1	20.4	26.5	8.7	2.4
Arkansas	1,129	51.0	45.5	16.9	20.7	28.7	28.6	3.4	5.2
California	8,914	61.6	51.1	14.4	18.8	19.1	27.4	4.8	2.7
Colorado	1,630	57.8	49.2	17.5	20.4	20.0	27.6	4.7	2.9
Connecticut	1,073	61.6	49.1	18.1	21.9	16.6	27.8	3.7	1.2
Delaware	197	52.8	43.2	23.4	26.0	15.7	28.8	8.1	2.0
District of Columbia	193	60.1	59.2	13.0	14.7	15.0	18.2	11.9	7.9
Florida	3,314	53.5	47.8	14.8	21.0	12.3	25.6	19.3	5.6
Georgia	1,969	60.5	49.2	20.8	23.2	16.4	25.8	2.2	1.7
Hawaii	279	64.5	52.5	13.3	16.4	15.4	28.2	6.8	2.8
Idaho	654	52.4	47.6	16.8	21.7	25.4	27.8	5.4	2.9
Illinois	4,292	61.4	54.6	17.0	16.2	17.6	27.5	4.0	1.7
Indiana	1,891	61.3	49.5	17.2	19.6	18.1	28.5	3.3	2.4
Iowa	1,519	53.7	45.3	19.4	20.4	23.9	32.0	3.0	2.3
Kansas	1,423	57.1	49.0	17.6	19.7	25.1	31.3	0.1	#
Kentucky	1,387	55.9	49.0	16.7	20.9	21.1	28.9	6.3	1.1
Louisiana	1,509	53.1	48.2	18.8	20.0	16.5	25.7	11.6	6.1
Maine	681	62.7	45.2	18.6	23.2	16.3	30.0	2.3	1.5
Maryland	1,340	64.8	49.0	17.9	21.9	15.1	28.0	2.2	1.1
Massachusetts	1,889	63.6	48.1	15.8	19.7	15.2	26.3	5.3	5.9
Michigan	3,782	57.6	47.1	17.2	21.3	19.0	28.1	6.2	3.5
Minnesota	2,119	49.1	45.4	13.4	19.2	30.0	32.9	7.6	2.4
Mississippi	886	49.5	45.2	20.7	20.9	20.3	24.7	9.5	9.2
Missouri	2,274	54.7	48.0	16.5	20.2	21.7	29.1	7.0	2.7
Montana	870	52.1	46.1	27.5	21.2	20.2	32.1	0.2	0.6
Nebraska	1,280	65.2	50.3	8.0	15.1	23.7	34.1	3.1	0.5
Nevada	517	61.9	51.2	15.3	22.0	20.1	26.4	2.7	0.5
New Hampshire	472	63.3	45.9	20.1	24.3	16.3	29.6	0.2	0.2
New Jersey	2,410	63.0	50.8	17.7	20.0	14.9	27.7	4.4	1.6
New Mexico	792	55.2	47.2	19.9	21.9	19.7	28.8	5.2	2.0
New York	4,298	57.8	48.3	17.3	20.0	18.3	27.6	6.5	4.2
North Carolina	2,223	59.3	49.0	20.5	22.8	15.5	26.1	4.7	2.0
North Dakota	529	58.4	48.9	6.8	12.8	34.2	35.9	0.6	2.5
Ohio	3,826	56.9	44.9	19.1	20.3	19.7	31.5	4.3	3.3
Oklahoma	1,814	54.2	51.9	19.0	20.5	25.5	25.2	1.2	2.3
Oregon	1,273	59.7	47.3	17.4	21.4	18.8	29.8	4.1	1.5
Pennsylvania	3,185	60.6	45.3	17.8	20.9	19.2	30.6	2.4	3.2
Rhode Island	326	66.6	47.3	17.2	23.6	14.4	28.6	1.8	0.4
South Carolina	1,053	57.1	47.9	23.8	23.6	17.9	27.8	1.2	0.8
South Dakota	749	49.8	46.1	23.6	21.9	23.5	31.3	3.1	0.6
Tennessee	1,610	60.2	50.6	17.6	19.5	17.6	27.1	4.7	2.8
Texas	7,646	50.6	48.3	20.0	22.6	18.1	25.7	11.2	3.4
Utah	791	59.5	51.5	16.2	21.1	19.3	24.7	4.9	2.7
Vermont	359	71.6	51.8	6.4	8.8	13.1	31.3	8.9	8.1
Virginia	1,839	63.1	48.3	18.2	21.7	17.0	29.2	1.7	0.9
Washington	2,170	54.2	47.5	16.2	20.4	20.9	28.5	8.7	3.6
West Virginia	784	62.8	49.3	17.3	21.5	16.6	27.0	3.3	2.3
Wisconsin	2,208	56.4	46.1	17.5	19.8	22.8	32.1	3.2	2.0
Wyoming	383	57.2	46.2	20.1	22.8	20.1	29.1	2.6	1.9

See footnotes at end of table.

Table 3. Percentage of public elementary and secondary schools and percentage of students in membership, by instructional level and by state: School year 2001–02—Continued

State	Number of schools having membership	Percentage by instructional level							
		Primary		Middle		High		Other	
		Schools	Students	Schools	Students	Schools	Students	Schools	Students
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas									
DoD schools (overseas)	154	55.8	56.7	13.6	14.1	23.4	22.6	7.1	6.5
DoD schools (domestic)	70	65.7	65.5	20.0	19.3	7.1	8.4	7.1	6.8
Bureau of Indian Affairs	177	58.2	50.4	2.3	1.8	11.3	15.1	28.2	32.7
American Samoa	31	74.2	69.9	3.2	5.1	19.4	24.8	3.2	0.3
Guam	38	71.1	48.8	18.4	23.5	10.5	27.7	0.0	0.0
Northern Marianas	29	79.3	61.1	6.9	13.7	10.3	24.7	3.4	0.5
Puerto Rico	1,530	58.3	45.2	14.7	17.9	12.0	20.7	15.0	16.2
Virgin Islands	35	65.7	52.8	20.0	17.0	11.4	28.7	2.9	1.5

#Rounds to zero.

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. Table excludes 2,753 schools (21 in outlying areas) for which no students were reported in membership. U.S. totals include the 50 states and the District of Columbia. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2001–02.

Table 4. Number of regular public school districts providing instruction and percentage of students in membership, by grade span and by state: School year 2001–02

State	Total districts	Grade span: PK, K, 1 to 8 or below		PK, K, 1 to 9–12		7, 8, 9 to 7–12		Other	
		Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students
United States	14,229	2,961	5.4	10,628	92.3	538	2.2	102	0.1
Alabama	128	0	0.0	128	100.0	0	0.0	0	0.0
Alaska	53	0	0.0	53	100.0	0	0.0	0	0.0
Arizona	301	136	24.2	116	65.9	43	9.7	6	0.1
Arkansas	312	0	0.0	311	100.0	0	0.0	1	#
California	986	532	18.9	368	72.8	84	8.1	2	0.2
Colorado	178	0	0.0	178	100.0	0	0.0	0	0.0
Connecticut	166	44	4.2	114	94.2	8	1.6	0	0.0
Delaware	19	0	0.0	15	94.1	3	5.0	1	0.9
District of Columbia	1	0	0.0	1	100.0	0	0.0	0	0.0
Florida	67	0	0.0	67	100.0	0	0.0	0	0.0
Georgia	180	5	0.1	175	99.9	0	0.0	0	0.0
Hawaii	1	0	0.0	1	100.0	0	0.0	0	0.0
Idaho	114	6	0.1	108	99.9	0	0.0	0	0.0
Illinois	893	387	25.3	405	63.4	100	11.2	1	0.1
Indiana	292	1	#	291	100.0	0	0.0	0	0.0
Iowa	371	21	0.7	350	99.3	0	0.0	0	0.0
Kansas	304	3	0.1	300	99.9	0	0.0	1	#
Kentucky	176	5	0.3	171	99.7	0	0.0	0	0.0
Louisiana	66	0	0.0	66	100.0	0	0.0	0	0.0
Maine	279	105	16.0	111	81.4	5	1.0	58	1.6
Maryland	24	0	0.0	24	100.0	0	0.0	0	0.0
Massachusetts	244	67	5.0	175	95.0	2	0.1	0	0.0
Michigan	554	29	0.1	524	99.9	0	0.0	1	#
Minnesota	413	38	0.8	340	98.8	26	0.3	9	0.1
Mississippi	152	1	#	148	99.7	3	0.2	0	0.0
Missouri	523	72	1.3	451	98.7	0	0.0	0	0.0
Montana	444	279	59.7	55	12.1	110	28.2	0	0.0
Nebraska	526	262	3.1	246	95.6	18	1.3	0	0.0
Nevada	17	0	0.0	17	100.0	0	0.0	0	0.0
New Hampshire	164	88	19.2	65	74.3	9	4.5	2	2.0
New Jersey	579	286	18.1	218	74.0	68	7.8	7	0.1
New Mexico	89	0	0.0	89	100.0	0	0.0	0	0.0
New York	701	42	1.1	642	98.2	10	0.7	7	#
North Carolina	121	2	#	118	100.0	0	0.0	1	#
North Dakota	218	48	2.4	165	97.1	5	0.5	0	0.0
Ohio	612	1	#	609	99.9	2	0.1	0	0.0
Oklahoma	543	112	3.5	430	96.4	0	0.0	1	#
Oregon	197	18	0.1	178	99.9	1	#	0	0.0
Pennsylvania	500	2	0.1	498	99.9	0	0.0	0	0.0
Rhode Island	36	4	1.4	31	97.6	0	0.0	1	1.0
South Carolina	86	1	#	85	100.0	0	0.0	0	0.0
South Dakota	173	5	0.9	168	99.1	0	0.0	0	0.0
Tennessee	138	14	2.4	124	97.6	0	0.0	0	0.0
Texas	1,040	65	0.3	975	99.7	0	0.0	0	0.0
Utah	40	0	0.0	40	100.0	0	0.0	0	0.0
Vermont	244	178	41.8	34	31.5	30	24.1	2	2.6
Virginia	132	0	0.0	132	100.0	0	0.0	0	0.0
Washington	296	48	1.0	247	99.0	0	0.0	1	#
West Virginia	55	0	0.0	55	100.0	0	0.0	0	0.0
Wisconsin	433	54	3.0	368	95.7	11	1.3	0	0.0
Wyoming	48	0	0.0	48	100.0	0	0.0	0	0.0

See footnotes at end of table.

Table 4. Number of regular public school districts providing instruction and percentage of students in membership, by grade span and by state: School year 2001-02—Continued

State	Total districts	Grade span							
		PK, K, 1 to 8 or below		PK, K, 1 to 9-12		7, 8, 9 to 7-12		Other	
		Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas[1]									
DoD schools (overseas)	9	0	0.0	9	100.0	0	0.0	0	0.0
DoD schools (domestic)	17	9	29.8	8	70.2	0	0.0	0	0.0
Bureau of Indian Affairs	24	1	2.2	22	97.8	0	0.0	1	0.0
American Samoa	1	0	0.0	1	100.0	0	0.0	0	0.0
Guam	1	0	0.0	1	100.0	0	0.0	0	0.0
Northern Marianas	1	0	0.0	1	100.0	0	0.0	0	0.0
Puerto Rico	1	0	0.0	1	100.0	0	0.0	0	0.0
Virgin Islands	1	0	0.0	1	100.0	0	0.0	0	0.0

#Rounds to zero.

[1]Table includes 26 Department of Defense and 24 Bureau of Indian Affairs school districts that are technically federally operated agencies; this is in order to report data for these agencies in the table.

NOTE: For states that did not provide a grade span, grade span was determined by the highest and lowest grades served among all schools associated with the district. "Other" includes all grade configurations not reported in the specified categories and includes ungraded districts. Table excludes 330 regular school districts for which no students were reported in membership. U.S. totals include the 50 states and the District of Columbia. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey," 2001-02; and "Local Education Agency Universe Survey," 2001-02.

Table 5. Average public school size (mean number of students per school), by instructional level and by state: School year 2001–02

State	Schools having membership	Instructional level			
		Primary	Middle	High	Other
United States	91,380	441	612	753	267
Alabama	1,381	452	578	672	523
Alaska	506	326	484	471	121
Arizona	1,742	509	621	686	148
Arkansas	1,129	355	488	397	618
California	8,914	572	904	987	379
Colorado	1,630	387	528	627	284
Connecticut	1,073	424	643	890	168
Delaware	197	479	653	1,075	144
District of Columbia	193	385	443	472	260
Florida	3,314	674	1,069	1,565	218
Georgia	1,969	607	834	1,177	578
Hawaii	279	538	819	1,212	274
Idaho	654	342	485	413	202
Illinois	4,292	430	460	753	201
Indiana	1,891	425	598	826	393
Iowa	1,519	270	336	429	241
Kansas	1,423	281	366	409	117
Kentucky	1,387	393	564	615	76
Louisiana	1,509	440	514	753	257
Maine	681	218	375	556	197
Maryland	1,340	486	785	1,194	318
Massachusetts	1,889	389	643	888	570
Michigan	3,782	372	561	675	257
Minnesota	2,119	372	578	441	127
Mississippi	886	508	563	677	542
Missouri	2,274	352	490	538	151
Montana	870	154	134	277	468
Nebraska	1,280	172	423	321	33
Nevada	517	571	993	907	129
New Hampshire	472	318	530	795	346
New Jersey	2,410	449	629	1,036	196
New Mexico	792	346	444	591	159
New York	4,298	558	770	1,004	432
North Carolina	2,223	489	657	999	257
North Dakota	529	168	377	210	875
Ohio	3,826	385	520	781	370
Oklahoma	1,814	328	370	339	655
Oregon	1,273	344	532	690	165
Pennsylvania	3,185	427	671	913	754
Rhode Island	326	344	667	963	115
South Carolina	1,053	536	632	995	390
South Dakota	749	158	158	228	34
Tennessee	1,610	469	619	860	333
Texas	7,646	520	614	772	164
Utah	791	526	792	775	338
Vermont	359	204	389	674	255
Virginia	1,839	484	756	1,084	309
Washington	2,170	407	586	635	192
West Virginia	784	283	447	587	246
Wisconsin	2,208	326	449	560	246
Wyoming	383	186	261	333	163

See footnotes at end of table.

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Table 5. Average public school size (mean number of students per school), by instructional level and by state: School year 2001–02—Continued

State	Schools having membership	Instructional level			
		Primary	Middle	High	Other
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas					
DoD schools (overseas)	154	483	493	460	436
DoD schools (domestic)	70	468	452	552	448
Bureau of Indian Affairs	177	227	209	352	304
American Samoa	31	483	804	656	48
Guam	38	578	1,074	2,215	1
Northern Marianas	29	278	720	861	54
Puerto Rico	1,530	306	480	684	426
Virgin Islands	35	431	456	1,348	288

†Not applicable.

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2001–02.

Table 6. Median public school student/teacher ratio, by instructional level and by state: School year 2001–02

State	Instructional level			
	Primary	Middle	High	Other
Reporting states[1]	16.0	15.7	15.1	11.9
Alabama	14.8	18.6	16.8	16.0
Alaska	16.6	16.7	15.8	11.4
Arizona	18.3	18.3	18.8	16.8
Arkansas	14.7	13.8	11.8	12.6
California	19.6	22.8	21.2	18.0
Colorado	16.4	16.4	15.4	13.1
Connecticut	14.3	12.8	12.8	17.1
Delaware	15.9	16.4	15.8	7.0
District of Columbia	13.8	14.3	13.6	6.3
Florida	17.2	19.6	19.7	12.0
Georgia	16.1	15.7	16.5	15.0
Hawaii	16.7	16.8	17.7	13.2
Idaho	18.1	17.6	15.5	12.8
Illinois	16.5	15.5	14.6	9.1
Indiana	17.6	17.2	17.0	12.6
Iowa	13.3	13.4	12.6	10.9
Kansas	14.2	13.8	11.9	4.0
Kentucky	17.9	16.7	16.3	9.0
Louisiana	14.6	15.4	15.2	13.3
Maine	13.1	14.0	13.8	9.4
Maryland	16.1	15.8	17.0	5.5
Massachusetts	—	—	—	—
Michigan	17.7	17.5	18.4	13.5
Minnesota	15.5	16.5	15.1	9.5
Mississippi	16.5	16.8	15.8	15.9
Missouri	13.9	14.8	13.4	7.1
Montana	12.8	13.1	11.4	18.2
Nebraska	12.2	13.6	11.7	10.2
Nevada	17.9	22.2	19.7	9.6
New Hampshire	13.7	13.8	13.2	11.9
New Jersey	14.4	13.1	12.9	7.4
New Mexico	14.6	14.5	14.5	14.7
New York	14.7	14.2	14.3	11.2
North Carolina	15.0	14.8	14.8	6.7
North Dakota	12.3	15.0	12.1	14.3
Ohio	16.9	16.1	16.9	15.4
Oklahoma	15.5	14.9	12.2	17.4
Oregon	20.0	19.8	18.7	12.2
Pennsylvania	16.7	15.9	15.4	14.8
Rhode Island	15.2	13.4	13.3	10.2
South Carolina	14.5	15.1	15.5	13.8
South Dakota	12.2	13.9	11.3	7.0
Tennessee	—	—	—	—
Texas	15.0	14.3	12.8	10.3
Utah	21.5	21.6	20.5	15.1
Vermont	11.9	12.2	11.1	10.6
Virginia	13.4	13.3	13.4	10.1
Washington	18.4	19.8	20.5	15.5
West Virginia	14.5	14.4	15.1	7.5
Wisconsin	14.4	14.5	14.9	12.9
Wyoming	12.5	12.5	11.9	10.5

See footnotes at end of table.

Table 6. Median public school student/teacher ratio, by instructional level and by state: School year 2001–02—Continued

State	Instructional level			
	Primary	Middle	High	Other
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas				
DoD schools (overseas)	14.7	14.5	12.7	11.0
DoD schools (domestic)	13.7	13.2	12.1	10.2
Bureau of Indian Affairs	—	—	—	—
American Samoa	17.4	32.2	15.5	2.5
Guam	15.2	16.0	21.4	0.0
Northern Marianas	17.7	16.0	14.9	18.0
Puerto Rico	13.0	15.3	16.8	13.2
Virgin Islands	12.9	11.1	13.8	8.2

— Not available.

[1] Total of reporting states; does not include Massachusetts or Tennessee.

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. U.S. totals include the 50 states and the District of Columbia. If all schools were ranked by student/teacher ratio from smallest to largest, half of the schools would fall below the median. For example, half of the primary schools in Alabama had a student/teacher ratio of less than 14.8.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2001–02.

Table 7. Distribution of regular public school districts and students, by district membership size: School year 2001–02

District membership size	Number of districts	Percentage of districts	Percentage of students
United States	14,229	100.0	100.0
100,000 or more	25	0.2	12.5
25,000 to 99,999	218	1.5	20.2
10,000 to 24,999	573	4.0	18.7
7,500 to 9,999	342	2.4	6.3
5,000 to 7,499	725	5.1	9.4
2,500 to 4,999	2,031	14.3	15.2
2,000 to 2,499	801	5.6	3.8
1,500 to 1,999	1,071	7.5	4.0
1,000 to 1,499	1,557	10.9	4.1
800 to 999	790	5.6	1.5
600 to 799	954	6.7	1.4
450 to 599	897	6.3	1.0
300 to 449	1,118	7.9	0.9
150 to 299	1,435	10.1	0.7
1 to 149	1,692	11.9	0.2

NOTE: Table includes the 50 states and the District of Columbia, and excludes 330 regular school districts for which no students were reported in membership. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2001–02.

Table 8. Distribution of public elementary and secondary schools, by community type and by state: School year 2001–02

State	Total schools	Locale code								
		Large city	Midsize city	Urban fringe of large city	Urban fringe of midsize city	Large town	Small town	Rural, outside MSA	Rural, inside MSA	Not applicable
United States	94,112	11,599	11,559	22,378	8,076	1,203	10,662	18,023	10,612	0
Alabama	1,526	95	259	131	212	10	294	291	234	0
Alaska	522	0	99	0	0	31	110	282	0	0
Arizona	1,815	707	164	421	30	33	160	189	111	0
Arkansas	1,153	0	248	8	98	11	281	402	105	0
California	8,916	1,658	1,153	3,988	626	42	253	523	673	0
Colorado	1,667	256	201	508	42	0	157	339	164	0
Connecticut	1,246	0	287	286	317	10	36	43	267	0
Delaware	199	0	40	76	23	0	20	26	14	0
District of Columbia	198	197	0	0	0	0	0	0	1	0
Florida	3,419	354	623	766	882	0	183	201	410	0
Georgia	1,969	98	208	535	96	33	336	341	322	0
Hawaii	279	75	0	94	0	0	0	97	13	0
Idaho	688	0	105	0	47	46	175	273	42	0
Illinois	4,351	604	476	1,476	183	63	499	654	396	0
Indiana	1,980	190	321	322	131	55	262	370	329	0
Iowa	1,521	0	243	1	126	65	360	623	103	0
Kansas	1,431	90	166	167	11	51	266	568	112	0
Kentucky	1,459	72	124	210	75	46	294	543	95	0
Louisiana	1,540	217	216	228	186	15	202	295	181	0
Maine	711	0	51	12	64	0	125	392	67	0
Maryland	1,385	181	49	804	12	0	37	101	201	0
Massachusetts	1,908	145	415	830	116	1	30	86	285	0
Michigan	3,984	315	519	1,075	467	0	400	560	648	0
Minnesota	2,408	307	112	776	82	25	369	533	204	0
Mississippi	1,037	0	120	22	99	51	322	350	73	0
Missouri	2,380	282	155	525	75	30	364	688	261	0
Montana	871	0	50	0	25	15	123	632	26	0
Nebraska	1,307	125	68	57	10	21	215	739	72	0
Nevada	531	102	52	167	38	12	37	94	29	0
New Hampshire	472	0	54	76	0	14	110	138	80	0
New Jersey	2,430	87	189	1,822	0	0	0	0	332	0
New Mexico	793	111	64	62	33	89	169	233	32	0
New York	4,351	1,318	265	1,184	489	15	291	268	521	0
North Carolina	2,234	112	493	81	265	24	329	519	411	0
North Dakota	569	0	66	0	23	19	72	343	46	0
Ohio	3,912	482	409	1,001	468	59	344	604	545	0
Oklahoma	1,824	236	91	291	14	50	319	654	169	0
Oregon	1,300	137	134	285	46	33	224	254	187	0
Pennsylvania	3,251	399	218	808	495	9	330	323	669	0
Rhode Island	333	0	116	0	163	0	6	7	41	0
South Carolina	1,145	0	174	19	325	0	166	247	214	0
South Dakota	762	0	68	0	14	0	104	539	37	0
Tennessee	1,646	290	198	147	172	25	254	356	204	0
Texas	7,761	1,862	1,116	1,673	414	82	872	999	743	0
Utah	791	0	139	0	341	28	102	157	24	0
Vermont	392	0	13	0	27	0	85	238	29	0
Virginia	2,090	150	353	460	256	16	152	436	267	0
Washington	2,233	130	377	703	140	27	207	349	300	0
West Virginia	822	0	82	30	121	12	144	368	65	0
Wisconsin	2,212	215	357	251	188	24	350	579	248	0
Wyoming	388	0	59	0	9	11	122	177	10	0

See footnotes at end of table.

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Table 8. Distribution of public elementary and secondary schools, by community type and by state: School year 2001–02—Continued

State	Total schools	Locale code								
		Large city	Midsize city	Urban fringe of large city	Urban fringe of midsize city	Large town	Small town	Rural, outside MSA	Rural, inside MSA	Not applicable
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas										
DoD schools (overseas)	154	0	0	0	0	0	0	0	0	154
DoD schools (domestic)	70	0	15	7	24	0	0	12	0	12
Bureau of Indian Affairs	189	1	6	11	9	1	32	117	12	0
American Samoa	31	0	0	0	0	0	0	0	0	31
Guam	38	0	0	0	0	0	0	0	0	38
Northern Marianas	29	0	0	0	0	0	0	0	0	29
Puerto Rico	1,538	0	0	0	0	0	0	0	0	1,538
Virgin Islands	36	0	0	0	0	0	0	0	0	36

NOTE: MSA stands for metropolitan statistical area. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2001–02.

Table 9. Number of Title I, magnet, and charter schools and percentage of students served, by state: School year 2001–02

State	Number of Title I eligible schools[2]	Percentage of all students in these schools	Number of Title I schoolwide schools	Percentage of all students in these schools	Number of magnet schools[3]	Percentage of all students in these schools	Number of charter schools[3]	Percentage of all students in these schools
Reporting states[1]	46,969	47.1	23,563	25.4	1,736	3.0	2,348	1.2
Alabama	850	55.1	586	36.0	41	3.0	†	†
Alaska	301	39.2	111	13.6	17	3.2	15	1.7
Arizona	—	—	—	—	—	—	370	6.7
Arkansas	822	66.1	429	30.9	7	1.0	6	0.2
California	5,183	60.0	2,579	33.5	456	9.4	350	2.2
Colorado	784	43.2	211	11.6	2	0.1	86	3.3
Connecticut	439	36.9	87	8.3	17	1.1	15	0.5
Delaware	102	46.6	24	10.2	2	0.9	10	3.7
District of Columbia[4]	131	75.8	131	75.8	2	1.1	33	9.2
Florida	1,194	32.5	1,092	29.7	—	—	192	1.6
Georgia	1,020	43.8	726	30.3	62	3.6	40	1.7
Hawaii	132	39.6	124	39.3	†	†	22	1.7
Idaho	499	66.0	91	11.2	†	†	10	0.6
Illinois	2,294	56.0	938	24.9	420	14.8	23	0.4
Indiana	1,021	46.2	156	6.4	23	1.3	1	—
Iowa	729	38.6	130	8.0	†	†	†	†
Kansas	665	36.5	219	15.4	33	3.1	11	0.3
Kentucky	1,027	73.6	686	44.1	35	4.3	†	†
Louisiana	864	50.7	722	42.2	74	6.3	20	0.5
Maine	542	68.0	53	4.8	1	—	1	—
Maryland	467	26.6	338	19.2	—	—	†	†
Massachusetts	1,053	50.1	431	20.2	7	0.4	43	1.5
Michigan	(5)	(5)	(5)	(5)	†	†	204	3.8
Minnesota	988	41.1	237	8.4	66	3.4	77	1.2
Mississippi	686	70.5	606	61.3	5	0.5	1	0.1
Missouri	1,239	47.4	383	14.2	49	2.4	21	0.8
Montana	689	85.4	121	13.6	†	†	†	†
Nebraska	525	38.6	141	13.1	—	—	†	†
Nevada	208	35.3	74	12.3	9	1.3	10	0.5
New Hampshire	252	48.7	19	2.9	†	†	0	0.0
New Jersey	1,368	54.8	256	10.9	2	0.1	51	0.9
New Mexico	530	56.0	340	37.8	1	#	20	0.8
New York	2,800	61.9	1,930	41.5	(5)	(5)	44	—
North Carolina	997	35.7	700	23.7	165	8.3	93	1.4
North Dakota	432	67.5	53	9.0	†	†	†	†
Ohio	2,536	60.6	1,204	27.8	†	†	85	1.2
Oklahoma	1,188	58.6	786	36.9	†	†	10	0.3
Oregon	502	33.3	234	16.7	(5)	(5)	22	0.2
Pennsylvania	2,180	63.3	513	15.4	—	—	77	1.6
Rhode Island	170	46.6	78	23.0	17	7.3	6	0.5
South Carolina	511	38.8	445	32.8	25	2.3	10	0.1
South Dakota	700	86.8	123	13.2	†	†	†	†
Tennessee	—	—	—	—	18	1.2	†	†
Texas	4,547	57.7	3,959	50.5	—	—	243	1.1
Utah	218	19.9	130	11.2	†	†	9	0.1
Vermont	211	57.5	77	21.7	†	†	†	†
Virginia	776	30.6	275	10.9	166	11.4	8	0.1
Washington	959	40.3	401	16.9	14	0.8	†	†
West Virginia	429	43.5	330	30.7	0	0.0	†	†
Wisconsin	1,062	44.1	239	12.4	†	†	109	1.7
Wyoming	147	34.6	45	11.0	0	0.0	0	0.0

See footnotes at end of table

Table 9. Number of Title I, magnet, and charter schools and percentage of students served, by state: School year 2001–02—Continued

State	Number of Title I eligible schools[2]	Percentage of all students in these schools	Number of Title I schoolwide schools	Percentage of all students in these schools	Number of magnet schools[3]	Percentage of all students in these schools	Number of charter schools[3]	Percentage of all students in these schools
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas								
DoD schools (overseas)	†	†	†	†	†	†	†	†
DoD schools (domestic)	†	†	†	†	†	†	†	†
Bureau of Indian Affairs	—	—	—	—	—	—	—	—
American Samoa	†	†	†	†	†	†	†	†
Guam	†	†	†	†	†	†	†	†
Northern Marianas	†	†	†	†	†	†	†	†
Puerto Rico	1,477	96.4	1,393	91.0	151	10.8	83	6.0
Virgin Islands	36	100.0	0	0.0	1	7.2	0	0.0

—Not available.

†Not applicable.

#Rounds to zero.

[1]Reporting states totals exclude states for which data were missing for 20 percent or more of the schools or districts.

[2]Number of Title I eligible schools includes those with and without schoolwide Title I programs.

[3]Zero indicates that this type of school is authorized but none were operating.

[4]Membership data were missing for 5 of the 33 charter schools in the District of Columbia.

[5]Data were missing for more than 20 percent of schools.

NOTE: Percentages are based on all schools reporting in a state. Numbers of schools include those not reporting students in membership. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2001–02.

Table 10. Number and percentage of public school students participating in selected programs, by state: School year 2001–02

State	Number of students with IEPs	Percentage of students with IEPs	Number of students receiving ELL services	Percentage of students receiving ELL services	Number of students receiving migrant services during school year[2]	Number of students receiving migrant services during summer	Number of students eligible for free or reduced-price meals	Percentage of all students eligible for free or reduced-price meals
Reporting states[1]	6,313,342	13.3	3,768,653	7.9	510,598	225,992	17,387,793	36.6
Alabama	95,708	13.2	7,159	1.0	—	—	353,648	48.7
Alaska	17,814	13.3	20,401	15.2	10,769	1,799	33,919	25.2
Arizona	97,654	10.6	148,861	16.1	—	—	—	—
Arkansas	56,165	12.5	13,187	2.9	7,631	1,569	212,410	47.2
California	661,575	10.8	1,510,859	24.6	196,751	134,115	2,905,001	47.3
Colorado	73,887	10.0	71,011	9.6	9,313	6,153	204,297	27.5
Connecticut	74,016	13.0	21,540	3.8	4,299	1,764	—	—
Delaware	16,068	13.9	3,004	2.6	177	204	39,958	34.6
District of Columbia	12,594	16.7	8,215	10.9	804	175	41,707	55.3
Florida	378,251	15.1	204,208	8.2	39,385	5,770	1,115,717	44.6
Georgia	170,106	11.6	63,272	4.3	26,250	4,624	650,580	44.2
Hawaii	22,848	12.4	15,765	8.5	1,304	329	77,276	41.9
Idaho	28,932	11.7	18,276	7.4	9,126	3,709	87,745	35.6
Illinois	297,307	14.4	136,295	6.6	2,044	2,694	729,074	35.2
Indiana	160,344	16.1	39,638	4.0	—	—	309,946	31.1
Iowa	72,305	14.9	13,337	2.7	5,357	748	129,546	26.7
Kansas	61,402	13.1	17,267	3.7	13,944	4,946	158,978	34.1
Kentucky	98,146	15.0	6,012	0.9	19,003	4,963	305,149	49.1
Louisiana	98,145	13.4	10,629	1.5	4,554	3,520	432,267	59.1
Maine	33,413	15.9	2,388	1.1	—	—	60,813	29.6
Maryland	111,511	13.0	32,534	3.8	341	900	255,544	29.7
Massachusetts	150,003	15.4	46,078	4.7	2,248	2,248	246,639	25.3
Michigan	232,592	13.4	50,021	2.9	—	7,028	536,994	31.2
Minnesota	110,307	13.0	47,961	5.6	1,906	2,732	224,882	26.4
Mississippi	62,117	12.6	2,279	0.5	2,366	1,049	322,149	65.3
Missouri	140,676	15.4	8,157	1.0	4,820	520	320,266	35.1
Montana	19,176	12.6	7,567	5.0	—	—	47,707	31.5
Nebraska	44,227	15.5	12,451	4.0	12,269	3,287	89,013	31.2
Nevada	40,216	11.3	40,112	11.2	486	79	106,315	29.7
New Hampshire	28,675	13.9	3,268	1.6	117	—	30,640	14.8
New Jersey	218,364	16.3	56,712	4.2	643	2,009	372,763	27.8
New Mexico	62,738	19.6	66,035	20.6	121	990	175,199	54.7
New York	424,722	14.8	193,711	6.7	—	—	1,239,721	43.2
North Carolina	186,255	14.2	52,644	4.0	14,024	7,463	505,507	38.4
North Dakota	13,401	12.6	—	—	286	410	29,679	28.0
Ohio	224,986	12.4	368	#	—	—	512,624	27.4
Oklahoma	87,672	14.1	37,618	6.0	—	729	302,869	48.7
Oregon	70,309	12.7	44,162	8.0	17,291	3,437	199,685	36.1
Pennsylvania	232,056	12.7	—	—	7,709	9,846	517,587	28.4
Rhode Island	31,616	20.0	10,156	6.4	114	24	53,084	33.6
South Carolina	98,423	14.6	6,409	1.0	1,337	1,014	328,061	48.7
South Dakota	16,764	13.1	4,246	3.3	1,634	192	38,556	30.1
Tennessee	143,116	15.9	—	—	—	—	—	—
Texas	495,493	11.9	601,791	14.5	85,386	—	1,889,948	45.4
Utah	54,571	11.3	41,306	8.6	3,640	3,010	140,513	29.2
Vermont	13,430	13.3	1,009	1.0	950	362	24,105	23.8
Virginia	164,523	14.1	43,535	3.7	1,222	556	340,823	29.3
Washington	120,775	12.0	(*)	(*)	(*)	(*)	317,245	31.4
West Virginia	50,080	17.7	915	0.3	96	—	142,663	50.4
Wisconsin	126,152	14.3	23,454	2.7	881	1,025	228,981	26.0
Wyoming	11,716	13.3	2,830	3.2	—	—	—	—

See footnotes at end of table.

Table 10. Number and percentage of public school students participating in selected programs, by state: School year 2001–02—Continued

State	Number of students with IEPs	Percentage of students with IEPs	Number of students receiving ELL services	Percentage of students receiving ELL services	Number of students receiving migrant services during school year[2]	Number of students receiving migrant services during summer	Number of students eligible for free or reduced-price meals	Percentage of all students eligible for free or reduced-price meals
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas								
DoD schools (overseas)	6,718	9.2	6,085	8.3	—	—	—	—
DoD schools (domestic)	3,340	10.2	2,031	6.2	—	—	—	—
Bureau of Indian Affairs	—	—	—	—	—	—	—	—
American Samoa	803	5.1	15,342	96.5	—	—	15,804[3]	99.4
Guam	2,543	7.9	14,336	44.8	—	—	14,143	44.2
Northern Marianas	557	5.3	—	—	1,200	—	10,345	98.7
Puerto Rico	65,874	10.9	—	—	(4)	446	488,066	80.8
Virgin Islands	1,504	8.0	—	—	—	—	—	—

— Not available.

#Rounds to zero.

[1]Reporting states totals exclude states for which data were missing for 20 percent or more of the schools or districts.

[2]Migrant students include those who were enrolled at any time during the previous (2000–01) regular school year. They are reported for each school in which they enrolled; because this is a duplicated count, the table does not show migrants as a percentage of all students.

[3]American Samoa did not report students eligible for reduced-price meals.

[4]Data were missing for more than 20 percent of schools or districts.

NOTE: IEP stands for Individualized Education Program. ELL stands for English Language Learner. Some data items were more likely to be missing from charter schools than from other schools. Free lunch data were missing for 625 of 2,348 charter schools, and migrant student data were missing for 682. Data on ELL students were missing for 110 of the total 989 charter school districts. Percentages are based on schools and agencies reporting. Detail may not sum to totals because of rounding. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey," 2001–02; and "Local Education Agency Universe Survey," 2001–02.

Table 11. Percent of students who are minority, by community type and by state: School year 2001–02

State	Total students	Number of minority students	Percentage of minority students by community type		
			City, large and midsize	Urban fringe of city	Small town or rural
Reporting states[1]	47,687,871	18,815,623	62.5	35.9	20.8
Alabama	737,294	286,738	70.2	29.4	30.4
Alaska	134,358	53,147	38.2	0.0	41.3
Arizona	922,180	448,977	52.9	40.0	51.0
Arkansas	449,805	130,082	47.4	15.2	23.0
California	6,248,610	3,969,986	74.3	61.2	42.2
Colorado	742,145	245,957	46.1	30.6	21.6
Connecticut	570,228	175,347	69.1	20.8	8.4
Delaware	115,555	46,593	57.7	39.3	30.7
District of Columbia[2]	75,392	65,331	86.6	0.0	100.0[3]
Florida	2,500,478	1,187,811	53.1	50.5	32.4
Georgia	1,470,634	679,379	80.3	50.6	33.7
Hawaii	184,546	147,055	81.8	80.0	78.0
Idaho	246,521	36,038	14.5	18.0	14.6
Illinois	2,071,391	850,215	75.4	31.4	8.5
Indiana	996,133	169,586	41.2	12.2	4.0
Iowa	485,932	50,460	22.1	7.6	5.0
Kansas	470,205	103,682	42.8	12.3	14.8
Kentucky	654,363	76,327	31.5	16.7	5.2
Louisiana	731,328	374,643	75.0	41.8	39.4
Maine	205,586	7,454	11.4	3.3	2.7
Maryland	860,640	409,252	77.0	49.7	20.6
Massachusetts	973,140	236,008	56.3	13.6	5.9
Michigan	1,730,668	457,160	71.2	18.3	7.3
Minnesota	851,384	153,277	53.6	12.9	8.2
Mississippi	493,507	260,273	75.5	28.7	53.0
Missouri	909,792	195,030	48.9	23.8	6.4
Montana	151,947	21,472	14.2	8.0	14.9
Nebraska	285,095	52,007	29.8	17.7	10.9
Nevada	356,814	162,454	52.4	47.7	25.7
New Hampshire	206,847	10,315	13.9	4.2	2.3
New Jersey	1,341,656	545,067	79.3	38.8	16.7
New Mexico	320,260	210,462	63.7	71.5	68.7
New York	2,872,132	1,296,450	80.2	23.5	6.9
North Carolina	1,315,363	525,730	54.4	33.0	34.0
North Dakota	106,047	12,028	9.1	7.6	13.0
Ohio	1,830,985	361,762	54.3	13.1	3.3
Oklahoma	622,139	225,558	48.7	26.4	35.0
Oregon	551,480	115,610	27.7	21.5	16.3
Pennsylvania	1,821,627	406,806	66.1	13.8	5.2
Rhode Island	158,046	42,113	54.4	13.4	4.6
South Carolina	691,078	303,295	56.3	36.4	47.6
South Dakota	127,542	17,670	16.4	7.3	13.3
Tennessee	925,030	256,719	—	—	—
Texas	4,163,447	2,462,268	75.4	47.3	42.4
Utah	484,677	73,388	29.9	12.7	10.7
Vermont	101,179	4,259	14.1	5.5	3.6
Virginia	1,163,091	432,410	59.4	35.8	22.7
Washington	1,009,200	267,425	36.0	26.0	20.0
West Virginia	282,885	15,423	10.7	6.9	4.0
Wisconsin	879,361	174,894	45.4	10.3	6.4
Wyoming	88,128	11,192	15.3	18.4	11.3

See footnotes at end of table.

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Table 11. Percent of students who are minority, by community type and by state: School year 2001–02—Continued

State	Total students	Number of minority students	Percentage of minority students by community type		
			City, large and midsize	Urban fringe of city	Small town or rural
Department of Defense (DoD) dependents schools, Bureau of Indian Affairs, and outlying areas					
DoD schools (overseas)	73,212	21,756	—	—	—
DoD schools (domestic)	32,847	13,430	40.9	35.4	34.9
Bureau of Indian Affairs	46,476	46,476	100.0	100.0	100.0
American Samoa	15,897	15,897	—	—	—
Guam	31,992	31,510	—	—	—
Northern Marianas	10,479	10,435	—	—	—
Puerto Rico	604,177	604,177	—	—	—
Virgin Islands	18,780	—	—	—	—

—Not available.

[1]Total of reporting states; does not include Tennessee.

[2]Racial/ethnic data were not reported for the 28 charter schools in the District of Columbia.

[3]Represents one school located in a small town locale outside the District of Columbia.

NOTE: Minority includes all groups except White, non-Hispanic. Community types classify the location of a school relative to populous areas. Percentages are based on schools reporting. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey," 2001–02; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02.

Effects of Energy Needs and Expenditures on U.S. Public Schools

Timothy Smith, Rebecca Porch, Elizabeth Farris, and William Fowler

This report was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the "Effects of Energy Needs and Expenditures on U.S. Public Schools" survey, conducted through the Fast Response Survey System (FRSS).

Introduction

Since the 1990s, the United States has experienced periods of volatility in energy costs (Joskow 2002). Public schools have not been immune to the increased energy costs associated with these periods. In light of these experiences, the National Center for Education Statistics (NCES) of the U.S. Department of Education undertook the "Effects of Energy Needs and Expenditures on U.S. Public Schools" survey. The survey examined the effects of energy needs on public school districts and was designed to contribute to a better understanding of how increases in energy expenditures influence school district budgeting and actions. It was not designed to assess the role that weather may have played in affecting energy expenditures, to evaluate the utility of various cost-saving measures that districts might employ to reduce energy expenditures, or to examine several other factors that might directly affect energy budgets.

Although the survey of 851 public school districts focused primarily on fiscal year[1] 2001 (FY 01), the questionnaire also gathered data on FY 00 energy expenditures and budgeted FY 02 energy expenditures to examine the financial resources available to districts. Data collection began in November 2001, approximately 4 months after the start of FY 02, thereby allowing districts to report total expenditures from FY 01 and budgets allocated for FY 02.

This report examines the effects of increased energy costs on the country's public school systems. Specifically, the following five topics are addressed:

- energy expenditures in FY 00 and FY 01, and budgeted expenditures for FY 01 and FY 02;
- efforts to reduce energy consumption;
- characteristics of districts with sufficient and insufficient energy budgets for FY 01;
- experiences of districts with energy budget shortfalls; and
- perceptions of school district staff regarding their districts' ability to respond to immediate and future energy needs.

It is important to note that many of the district characteristics used for independent analyses are related to each other. For example, in 1999–2000, district enrollment and metropolitan status were related, with urban districts typically being larger than rural districts. Relationships also exist between other analysis variables, such as enrollment size and region, metropolitan status and poverty concentration, and per pupil expenditure and percentage of budget allocated for energy. Because of the relatively small sample size used in this study, no attempt has been made to parse out the independent associations of these variables. Their existence, however, should be considered in the interpretation of the data presented in this report.

Overview of Actual and Budgeted Energy Expenditures

Survey findings indicate that, on average, school districts spent $137 per pupil on energy expenditures in FY 00. For FY 01, they budgeted an 11 percent increase, raising their budgets to $152 per pupil. However, actual FY 01 per pupil energy expenditures, at $166 per pupil, were 22 percent higher than in FY 00. The average district experienced a 9 percent shortfall between what it had budgeted for FY 01 and its actual expenditures. The average school district budgeted $176 per pupil for FY 02 energy needs, or a 6 percent increase over what it actually spent in FY 01. This $24 per pupil increase over FY 01 budgeted costs translated into an increase of about $1 billion in expected costs.

Key Findings

Key findings from the survey are as follows:

Energy expenditures in FY 01

- In FY 01, energy expenditures were nearly $8 billion.
- From FY 00 to FY 01, when inflation was 3.4 percent[2] (Snyder and Hoffman 2002), per pupil expenditures for energy rose from $137 to $166

[1] Throughout this report, the term "fiscal year" is used to specify the calendar period associated with school district finances. School districts often define the fiscal year from July 1 through June 30, with the year referring to the calendar year in which the fiscal year ends. For example, for many districts, fiscal year 2001 began on July 1, 2000, and ended on June 30, 2001. In using this designation of fiscal years, the 2000–01 school year would cover similar calendar dates as fiscal year 2001.

[2] As measured by the Consumer Price Index adjusted to a school-year basis (July through June).

(22 percent). If energy costs had risen at the rate of inflation, an additional $22 per pupil, or $1 billion, would have been available for school districts.

- Sixty-one percent of public school districts reported a shortfall in energy funding in FY 01.
- Eighty-three percent of school districts that had experienced an energy budget shortfall attributed the shortfall to increases in the cost per unit of energy.
- Small school districts spent the most per pupil in energy expenditures in FY 01 ($204). However, both large and midsized school districts were more likely to encounter shortfalls in funding their energy expenditures in FY 01.
- Rural districts spent more per pupil for energy in FY 01 ($190) than urban or suburban districts ($154 and $164, respectively).
- School districts in the West spent $149 per pupil on energy, compared with $189 in the Central region.

Efforts to reduce energy consumption

- During FY 01, school districts took various actions to improve energy efficiency. Forty-seven percent of public school districts renovated or retrofitted existing facilities, 39 percent locked in rates with one or more energy vendors, 29 percent participated in consortia that negotiated prices with third-party energy vendors, 12 percent instituted or increased fees to use facilities, and 7 percent closed schools or sent students home early for at least 1 day (table A).

Table A. Percent of public school districts using various measures to reduce energy expenditures, by selected district characteristics: Fiscal years 2001 and 2002

District characteristic	Measures taken in fiscal year (FY) 2001[1]				
	Renovated/ retrofitted facilities	Locked in rates	Participated in consortia	Instituted/ increased fees to use facilities	Closed schools/ sent students home early
Total	47	39	29	12	7
District enrollment in 1999–2000					
1 to 2,499	40	38	26	9	8
2,500 to 9,999	63	44	39	18	7
10,000 or more	75	38	30	29	6
Metropolitan status					
Urban	53	22	25	13	3
Suburban	51	44	45	16	7
Rural	43	37	17	8	8
Region					
Northeast	46	60	68	11	4
Southeast	59	34	10	13	11
Central	48	52	29	10	8
West	44	9	9	15	7
Poverty concentration[2]					
Less than 10 percent	50	51	42	17	6
10 to 19 percent	53	37	30	10	7
20 percent or more	42	34	18	11	9
Overall FY 01 budget per pupil					
Low: Less than $6,500	55	27	18	14	8
Mid-level: $6,500 to $8,999	46	41	27	11	8
High: $9,000 or more	44	46	40	11	6
FY 01 energy budget sufficiency status[3]					
Sufficient	42	40	30	10	9
Insufficient	51	39	29	13	7
Percent of budget allocated for energy[4]					
1 percent or less	47	44	38	10	7
2 percent	51	42	33	13	7
3 percent or more	44	33	19	11	8

See footnotes at end of table (on next page).

Table A. Percent of public school districts using various measures to reduce energy expenditures, by selected district characteristics: Fiscal years 2001 and 2002—Continued

District characteristic	Measures taken in FY 02[1]				
	Renovated/ retrofitted facilities	Locked in rates	Participated in consortia	Instituted/ increased fees to use facilities	Closed schools/ sent students home early
Total	47	44	33	15	6
District enrollment in 1999–2000					
1 to 2,499	41	42	31	12	7
2,500 to 9,999	59	50	42	22	5
10,000 or more	74	44	32	37	4
Metropolitan status					
Urban	55	27	28	22	1
Suburban	49	48	50	21	6
Rural	44	42	21	10	7
Region					
Northeast	47	64	70	15	5
Southeast	56	35	10	11	8
Central	44	55	33	11	7
West	48	18	17	23	5
Poverty concentration[2]					
Less than 10 percent	47	56	46	21	6
10 to 19 percent	51	43	35	13	6
20 percent or more	45	38	22	13	7
Overall FY 01 budget per pupil					
Low: Less than $6,500	49	34	23	17	7
Mid-level: $6,500 to $8,999	45	45	31	15	7
High: $9,000 or more	47	51	44	14	4
FY 01 energy budget sufficiency status[3]					
Sufficient	40	42	33	14	7
Insufficient	52	45	34	16	5
Percent of budget allocated for energy[4]					
1 percent or less	44	48	41	15	4
2 percent	50	46	36	15	6
3 percent or more	45	40	25	16	7

[1]Data reflect measures that were taken during the first half of FY 02 or that were anticipated during the fiscal year, since data collection was completed before the end of the fiscal year.

[2]Poverty concentration is based on Census Bureau data on the percentage of children ages 5–17 in families below the poverty level within districts in 1996–97.

[3]FY 01 energy budget sufficiency status is based on responses to survey question 2d, part 1 (FY 01 budgeted energy expenditures) and part 2 (FY 01 actual energy expenditures). Districts were classified as having sufficient or insufficient funds allocated to meet their FY 01 energy needs.

[4]The categories used for percent of budget allocated for energy reflect the following ranges: 1 percent or less includes districts that allocated less than 1.5 percent for energy; 2 percent includes those that allocated from 1.5 percent to less than 2.5 percent for energy; and 3 percent or more includes those that allocated 2.5 percent or more for energy.

NOTE: Percentages presented in this table are based on the estimated number of regular public school districts—14,400. Respondents were able to select as many answers as applied. Poverty concentration was missing for 11 cases, overall fiscal year budget per pupil was missing for 3 cases, fiscal year sufficiency status was missing for 8 cases, and budget allocated for energy was missing for 10 cases in the sample. Those cases were included in the totals and in analyses by other district characteristics. No imputation was performed in cases where information on district characteristics (e.g., poverty concentration) was missing or where districts did not provide information on the survey (e.g., item nonresponse). Ratios (averages) using nonimputed data will implicitly impute the cell ratio for all missing data within the cell. This can cause inconsistencies in the estimates between tables.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS), "Effects of Energy Needs and Expenditures on U.S. Public Schools," FRSS 81, 2001. (Originally published as table 3 on pp. 12–13 of the complete report from which this article is excerpted.)

- During FY 02, 47 percent of the nation's districts renovated or retrofitted existing facilities, 44 percent locked in rates, 33 percent participated in consortia, 15 percent instituted or increased fees to use facilities, and 6 percent closed schools or sent students home early for at least 1 day.

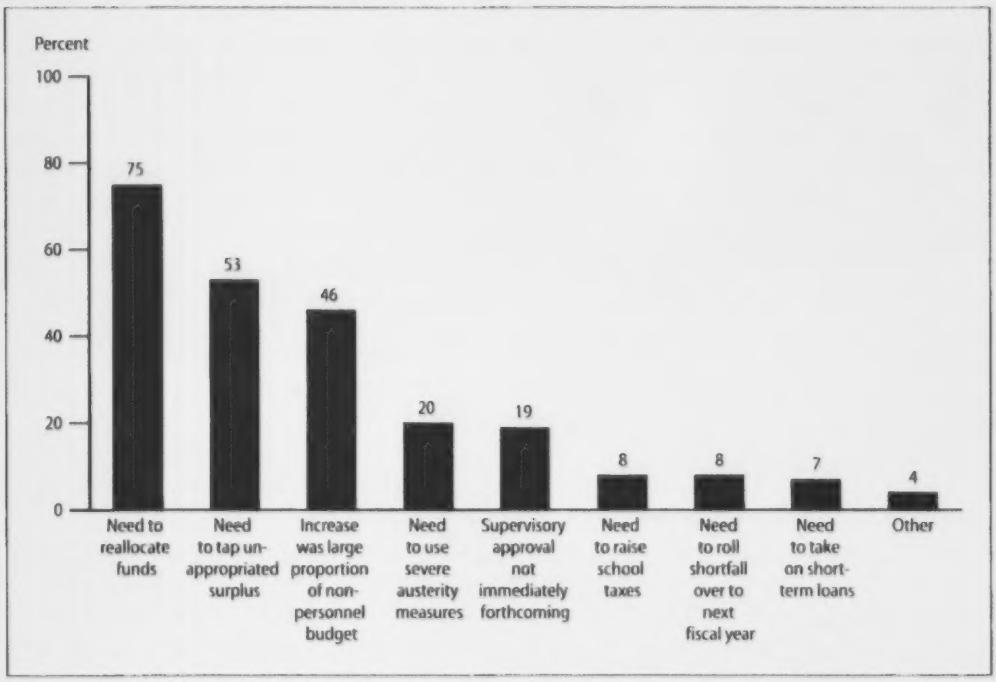
Characteristics of districts with sufficient and insufficient energy budgets for FY 01

- The likelihood of experiencing an insufficient energy budget was lower in small districts than in either midsized or large districts (56 percent compared to 72 and 80 percent, respectively).
- Urban school districts were more likely to have insufficient funds than suburban or rural districts (82 percent compared to 60 and 59 percent, respectively).
- The likelihood of a shortfall was greatest in districts in the Southeast, where 81 percent of school districts encountered an insufficient energy budget.
- Districts whose total FY 01 budget averaged $9,000 or more per student were less likely to have insufficient funds allocated for energy needs than districts that budgeted between $6,500 and $8,999 per student.

Experiences of districts with energy budget shortfalls

- When they encountered budget shortfalls, school districts took a variety of actions (either individually or in combination) to cover some energy costs in FY 01: 75 percent reallocated funds from other programs, 53 percent used an unappropriated surplus, and 46 percent used a large proportion of the nonpersonnel budget (figure A).

Figure A. Percent of public school districts with insufficient energy budgets for fiscal year (FY) 2001 reporting various reasons for difficulty responding to the insufficiency: FY 01



NOTE: Percentages presented in this figure are based on the estimated number of regular public school districts with insufficient budgets—8,700. Respondents were able to select as many answers as applied.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS), "Effects of Energy Needs and Expenditures on U.S. Public Schools," FRSS 81, 2001. (Originally published as figure 3 on p. 23 of the complete report from which this article is excerpted.)

- Twenty percent of districts experiencing an insufficient energy budget responded by instituting severe austerity measures.
- Nineteen percent of districts responding to an energy budget shortfall found that supervisory approval of increased energy funding was not immediately forthcoming.
- In response to a shortfall in the energy budget, 8 percent of districts raised school taxes and 8 percent rolled over the underbudgeted amount to the next fiscal year.
- Seven percent of districts experiencing an insufficient energy budget used short-term loans to finance the additional funds needed.

Perceptions of school district staff regarding their districts' ability to respond to immediate and future energy needs

- Forty-two percent of respondents nationwide agreed or strongly agreed that their school district had successfully reduced energy usage in FY 01.
- Thirty-seven percent of all school districts believed they have a long-term energy problem, and nearly three-quarters believed that "future increases in energy costs pose a major threat to the allocation of district funds to essential areas such as student instruction."

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Data source: The NCES Fast Response Survey System (FRSS), "Effects of Energy Needs and Expenditures on U.S. Public Schools," FRSS 81, 2001.

For technical information, see the complete report:

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To obtain the complete report (NCES 2003–018), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2000–01

Elise St. John

This article was originally published as a Statistics in Brief report. The universe data are from the "National Public Education Financial Survey" (NPEFS), part of the Common Core of Data (CCD). Technical notes and definitions from the original report have been omitted.

Nearly $401 billion of revenues were raised to fund public education for grades prekindergarten through 12 in school year 2000–01 (fiscal year 2001). Current expenditures (those excluding construction, equipment, and debt financing) came to just over $348 billion. About three out of every five current expenditure dollars were spent on teachers, textbooks, and other instructional services and supplies. An average of $7,376 was spent on each student—an increase of 6.7 percent from $6,911 in school year 1999–2000 (in unadjusted dollars).* Total expenditures for public education, including school construction, debt financing, community services, and adult education programs, came to $412 billion.

These and other financial data on public elementary and secondary education are collected and reported each year by the National Center for Education Statistics (NCES), U.S. Department of Education. The data are part of the "National Public Education Financial Survey" (NPEFS), one of the components of the Common Core of Data (CCD) collection of surveys. These data were collected from March to September 2002. Editing and imputations were completed in February 2003.

Revenues for Public Elementary and Secondary Education

About $401 billion were collected for public elementary and secondary education for school year 2000–01 in the 50 states and the District of Columbia (table 1). Total revenues ranged from a high of around $51 billion in California, which serves about 1 out of every 8 students in the nation, to a low of about $768 million in North Dakota, which serves roughly 1 out of every 432 students in the nation. Nationally, revenues increased an average of 7.5 percent over the previous year's revenues of $373 billion (in unadjusted dollars). By far, the greatest part of education revenues came from nonfederal sources (state, intermediate, and local governments), which together provided about $372 billion, or 92.7 percent of all revenues.

The federal government contribution to education revenues made up the remaining $29 billion. The relative contributions from these levels of government can be expressed as portions of the typical education dollar (figure 1). As in the previous school year, local and intermediate sources for school year 2000–01 made up 43 cents of every dollar in revenue; state revenues comprised 50 cents; and the remaining 7 cents came from federal sources.

Among states with more than one school district, revenues from local sources ranged from 15.0 percent (New Mexico) to 66.3 percent (Nevada) of total revenues (table 2). Hawaii and the District of Columbia have only one school district each and thus are not comparable to other states. Revenues from state sources also showed a wide distribution in their share of total revenues. The state revenue share of total revenues was less than 30 percent in Nevada (28.6 percent) and just over 70 percent in New Mexico (71.1 percent) and Vermont (70.7 percent). Federal revenues ranged from 3.9 percent in New Jersey to 15.8 percent in Alaska. Federal sources contributed more than 10 percent of the revenues in Alaska, Arizona, the District of Columbia, Louisiana, Mississippi, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, and West Virginia.

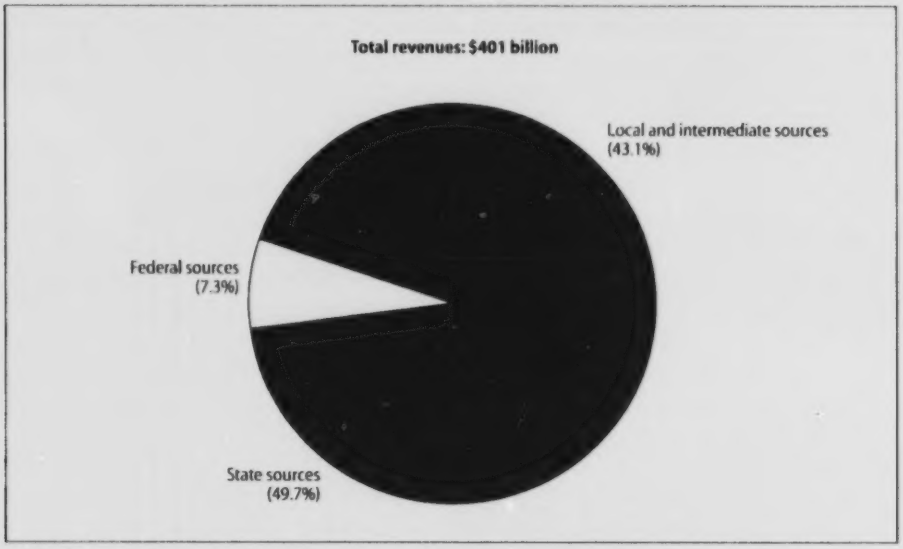
Current Expenditures for Public Elementary and Secondary Education

Current expenditures for public education in 2000–01 totaled over $348 billion (table 3). This represents a $24 billion (7.5 percent) increase over expenditures in the previous school year ($324 billion in unadjusted dollars). Over $214 billion in current expenditures went for instruction. Another $119 billion were expended for a cluster of services that support instruction. Nearly $15 billion were spent on noninstructional services.

When expressed in terms of the typical education dollar, instructional expenditures accounted for approximately 62 cents of the education dollar for current expenditures (figure 2). Instructional expenditures include teacher salaries and benefits, supplies (e.g., textbooks), and purchased services. About 34 cents of the education dollar went for support services, which include operation and maintenance of buildings, school administration,

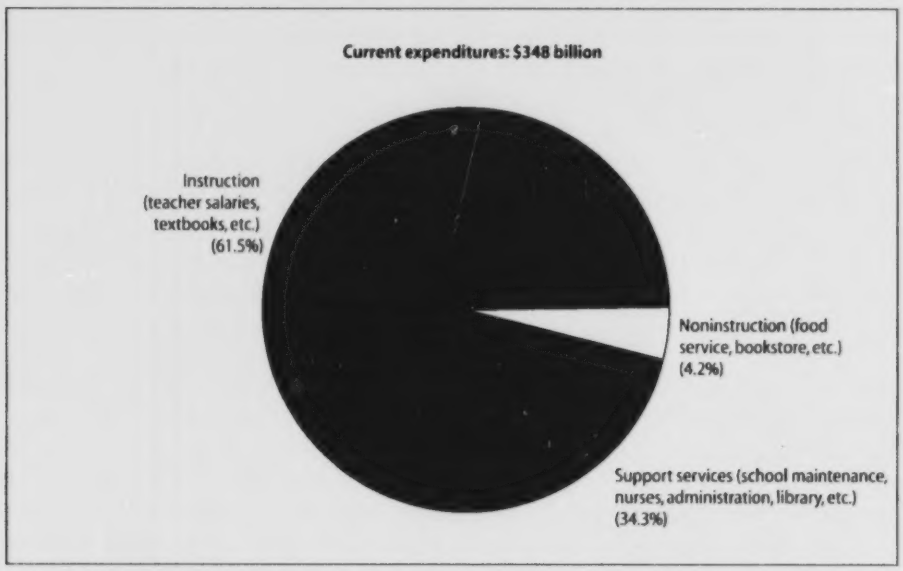
*Comparisons are based on the previous edition of this report, *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1999–2000* (Johnson 2002).

Figure 1. The public education dollar: Revenues by source: School year 2000–01



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Figure 2. The public education dollar: Current expenditures by function: School year 2000–01


Current expenditures: $348 billion
Instruction (teacher salaries, textbooks, etc.) (61.5%)
Noninstruction (food service, bookstore, etc.) (4.2%)
Support services (school maintenance, nurses, administration, library, etc.) (34.3%)

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

transportation, and other student and school support activities (e.g., student counseling, libraries, and health services). Just over 4 cents of every education dollar went to noninstructional activities, which include school meals and enterprise activities, such as bookstores.

Most states were closely clustered around the national average (61.5 percent) in terms of the share of current expenditures that were spent on instruction; all but five states and the District of Columbia spent more than 58 percent of their current expenditures on instruction (table 4). These states were Alaska, Arizona, Colorado, New Mexico, and Oklahoma. Three states spent about two-thirds of their current expenditures on instruction. These states were New York (67.9 percent), Maine (66.9 percent), and Massachusetts (66.3 percent).

Current Expenditures per Student

In 2000–01, the 50 states and the District of Columbia spent an average of $7,376 in current expenditures for every pupil in membership (table 5). This represents a 6.7 percent increase in current expenditures per student from the previous school year ($6,911 in unadjusted dollars). Three states—New Jersey ($11,248), New York ($10,716), and Connecticut ($10,127)—expended more than $10,000 per pupil. The District of Columbia, which comprises a single urban district, spent $12,046 per pupil. Only one state, Utah, had expenditures of less than $5,000 for each pupil in membership ($4,674). The median of the state per pupil expenditures was $6,930, indicating that one-half of all states educated students at a cost of less than $6,930 per student.

On average, for every student in 2000–01, about $4,539 was spent for instructional services. Expenditures per pupil for instruction ranged from $3,012 in Arizona to $7,274 in New York. Support services expenditures per pupil were highest in New Jersey ($4,240) and lowest in Utah ($1,369). Expenditures per pupil for noninstructional services such as food services were $309 for the nation.

Expenditures for Instruction

Expenditures for instruction totaled approximately $214 billion for school year 2000–01 (table 6). Over $154 billion went for salaries for teachers and instructional aides. Benefits for instructional staff made up an additional $40 billion, bringing the total for salaries and benefits for teachers and teacher aides to $194 billion. Instructional supplies, including textbooks, made up over $10 billion. (Expenditures for computers and desks are not considered current expenditures, but are reported as replacement equipment in table 7.) Expenditures for purchased services were over $6 billion. These expenditures include the costs for contract teachers (who are not on the school district's payroll), educational television, computer-assisted instruction, and rental equipment for instruction. Tuition expenditures for sending students to out-of-state schools and nonpublic schools within the state totaled over $2 billion.

Total Expenditures

Total expenditures made by school districts came to almost $412 billion in the 2000–01 school year (table 7). About $348 billion of total expenditures were current expenditures for public elementary and secondary education. An additional $39 billion went for facilities acquisition and construction, $8 billion for replacement equipment, and another $10 billion for interest payments on debt. The remaining amount ($6 billion) was spent on other programs, such as community services and adult education, which are not part of public elementary and secondary education.

Total expenditures include all types of expenditures by school districts and other public elementary/secondary education agencies. Researchers generally use current expenditures instead of total expenditures when comparing education spending between states or across time because current expenditures exclude expenditures for capital outlay, which tend to have dramatic increases and decreases from year to year. Also, the current expenditures commonly reported are for public elementary and secondary education only. Many school districts also support community services, adult education, private education, and other programs, which are included in total expenditures. These programs and the extent to which they are funded by school districts vary greatly both across states and within states.

Reference

Johnson, F. (2002). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1999–2000* (NCES 2002–367). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data source: The NCES Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 2000–01.

For technical information, see the complete report:

St. John, E. (2003). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2000–01* (NCES 2003–362).

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To obtain the complete report (NCES 2003–362), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Table 1. Revenues for public elementary and secondary schools, by source and state: School year 2000–01

[In thousands of dollars]

State	Revenues by source				
	Total	Local	Intermediate	State	Federal
United States	$400,919,024[1]	$171,437,905[1]	$1,248,119	$199,146,586	$29,086,413
Alabama	4,812,302	1,465,636	11,626	2,881,224	453,817
Alaska	1,370,271	372,002	0	782,348	215,921
Arizona	5,797,151[1]	2,495,806[1]	158,980	2,525,390	616,976
Arkansas	2,812,169	870,788	4,539	1,676,138	260,705
California	51,007,510	15,455,448	0	31,392,549	4,159,513
Colorado	5,349,899	2,807,615	20,625	2,222,083	299,576
Connecticut	6,460,491	3,630,884	0	2,553,180	276,427
Delaware	1,112,519	292,016	0	732,599	87,904
District of Columbia	1,042,711	927,184	0	0	115,527
Florida	17,866,868	7,572,396	0	8,695,213	1,599,259
Georgia	12,191,113	5,444,288	0	5,963,337	783,487
Hawaii	1,682,330	30,062	0	1,511,317	140,951
Idaho	1,593,966	487,883	0	977,438	128,646
Illinois	18,217,079	10,671,377	0	6,124,183	1,421,519
Indiana	9,033,180	3,670,449	64,289	4,833,954	464,489
Iowa	3,954,178	1,752,946	8,835	1,943,708	248,689
Kansas	3,597,726	1,101,876	66,160	2,198,216	231,473
Kentucky	4,509,893	1,358,888	0	2,702,932	448,073
Louisiana	5,060,133	1,981,902	0	2,497,875	580,356
Maine	1,934,178	917,783	0	863,295	153,100
Maryland	7,846,891	4,440,714	0	2,928,715	477,463
Massachusetts	10,148,498	5,216,679	0	4,420,622	511,198
Michigan	16,358,532	4,632,602	5,950	10,603,606	1,116,374
Minnesota	7,873,549	2,526,150	210,950	4,765,802	370,648
Mississippi	2,903,534	895,077	527	1,607,126	400,804
Missouri	7,102,501	3,914,441	34,922	2,661,904	491,233
Montana	1,140,168	363,504	102,673	542,692	131,299
Nebraska	2,307,804	1,317,357	16,992	805,419	168,036
Nevada	2,393,494	1,587,529	0	683,605	122,360
New Hampshire	1,714,147	751,907	0	884,875	77,365
New Jersey	15,967,075	8,668,260	123	6,669,858	628,834
New Mexico	2,426,705	362,942	0	1,725,551	338,213
New York	34,266,171	16,309,733	176,733	15,818,051	1,961,653
North Carolina	9,262,181	2,447,352	0	6,144,449	670,380
North Dakota	767,798	356,189	9,821	299,089	102,697
Ohio	16,649,361	8,406,706	47,960	7,187,325	1,007,370
Oklahoma	4,034,825	1,164,727	73,201	2,386,216	410,681
Oregon	4,564,408	1,598,529	62,788	2,566,099	336,992
Pennsylvania	17,053,891	9,480,665	21,699	6,443,673	1,107,854
Rhode Island	1,545,675	802,319	0	652,723	90,634
South Carolina	5,459,399	2,071,464	0	2,941,097	446,838
South Dakota	885,229	450,223	14,594	312,880	107,532
Tennessee	5,711,950	2,655,264	0	2,532,336	524,351
Texas	30,469,570	14,888,048	69,330	12,855,241	2,656,951
Utah	2,745,656	932,467	0	1,608,249	204,939
Vermont	1,035,679	242,592	0	732,563	60,523
Virginia	9,313,330	4,853,009	0	3,939,548	520,773
Washington	8,058,875	2,361,257	0	5,072,388	625,231
West Virginia	2,375,788	679,529	2,674	1,450,453	243,131
Wisconsin	8,327,255	3,484,353	0	4,424,429	418,472
Wyoming	803,414	269,090	62,128	403,020	69,176
Outlying areas					
American Samoa	58,262	1,813	77	10,551	45,822
Guam	—	—	—	—	—
Northern Marianas	55,164	315	0	37,230	17,619
Puerto Rico	2,331,691	914	0	1,658,907	671,870
Virgin Islands	165,801	137,546	0	0	28,256

—Not available.

[1]Value affected by redistribution of reported values to correct for missing data items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Table 2. Percentage distribution of revenue for public elementary and secondary schools, by source and state: School year 2000–01

State	Within-state percentage distribution			
	Local	Intermediate	State	Federal
United States[1]	42.8	0.3	49.7	7.3
Alabama	30.5	0.2	59.9	9.4
Alaska	27.1	0.0	57.1	15.8
Arizona[1]	43.1	2.7	43.6	10.6
Arkansas	31.0	0.2	59.6	9.3
California	30.3	0.0	61.5	8.2
Colorado	52.5	0.4	41.5	5.6
Connecticut	56.2	0.0	39.5	4.3
Delaware	26.2	0.0	65.9	7.9
District of Columbia	88.9	0.0	0.0	11.1
Florida	42.4	0.0	48.7	9.0
Georgia	44.7	0.0	48.9	6.4
Hawaii	1.8	0.0	89.8	8.4
Idaho	30.6	0.0	61.3	8.1
Illinois	58.6	0.0	33.6	7.8
Indiana	40.6	0.7	53.5	5.1
Iowa	44.3	0.2	49.2	6.3
Kansas	30.6	1.8	61.1	6.4
Kentucky	30.1	0.0	59.9	9.9
Louisiana	39.2	0.0	49.4	11.5
Maine	47.5	0.0	44.6	7.9
Maryland	56.6	0.0	37.3	6.1
Massachusetts	51.4	0.0	43.6	5.0
Michigan	28.3	0.0	64.8	6.8
Minnesota	32.1	2.7	60.5	4.7
Mississippi	30.8	0.0	55.4	13.8
Missouri	55.1	0.5	37.5	6.9
Montana	31.9	9.0	47.6	11.5
Nebraska	57.1	0.7	34.9	7.3
Nevada	66.3	0.0	28.6	5.1
New Hampshire	43.9	0.0	51.6	4.5
New Jersey	54.3	0.0	41.8	3.9
New Mexico	15.0	0.0	71.1	13.9
New York	47.6	0.5	46.2	5.7
North Carolina	26.4	0.0	66.3	7.2
North Dakota	46.4	1.3	39.0	13.4
Ohio	50.5	0.3	43.2	6.1
Oklahoma	28.9	1.8	59.1	10.2
Oregon	35.0	1.4	56.2	7.4
Pennsylvania	55.6	0.1	37.8	6.5
Rhode Island	51.9	0.0	42.2	5.9
South Carolina	37.9	0.0	53.9	8.2
South Dakota	50.9	1.6	35.3	12.1
Tennessee	46.5	0.0	44.3	9.2
Texas	48.9	0.2	42.2	8.7
Utah	34.0	0.0	58.6	7.5
Vermont	23.4	0.0	70.7	5.8
Virginia	52.1	0.0	42.3	5.6
Washington	29.3	0.0	62.9	7.8
West Virginia	28.6	0.1	61.1	10.2
Wisconsin	41.8	0.0	53.1	5.0
Wyoming	33.5	7.7	50.2	8.6
Outlying areas				
American Samoa	3.1	0.1	18.1	78.6
Guam	—	—	—	—
Northern Marianas	0.6	0.0	67.5	31.9
Puerto Rico	0.0	0.0	71.1	28.8
Virgin Islands	83.0	0.0	0.0	17.0

—Not available.

[1]Distribution affected by redistribution of reported values to correct for missing items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Table 3. Current expenditures for public elementary and secondary schools, by function and state: School year 2000–01

[In thousands of dollars]

State	Current expenditures, by function			
	Total	Instruction	Support services	Noninstruction
United States	$348,170,327[1]	$214,239,936[1]	$119,340,347	$14,590,045[1]
Alabama	4,354,794	2,685,185	1,372,039	297,570
Alaska	1,229,036	706,834	480,533	41,669
Arizona	4,632,539	2,644,051	1,680,590	307,898
Arkansas	2,505,179	1,529,997	835,105	140,077
California	42,908,787	26,669,527	14,607,413	1,631,847
Colorado	4,758,173	2,720,856	1,864,821	172,495
Connecticut	5,693,207	3,636,781	1,847,122	209,305
Delaware	1,027,224	624,720	355,721	46,784
District of Columbia	830,299	412,276	394,657	23,366
Florida	15,023,514	8,765,578	5,527,470	730,466
Georgia	10,011,343	6,348,453	3,147,603	515,287
Hawaii	1,215,968	732,495	412,198	71,275
Idaho	1,403,190	860,621	481,262	61,308
Illinois	15,658,682	9,353,629	5,790,227	514,826
Indiana	7,548,487	4,649,180	2,594,493	304,814
Iowa	3,430,885	2,009,507	1,165,065	256,313
Kansas	3,258,807	1,910,980	1,196,779	151,049
Kentucky	4,047,392	2,480,235	1,353,852	213,305
Louisiana	4,485,878	2,703,004	1,488,369	294,505
Maine	1,704,422	1,140,002	506,477	57,943
Maryland	7,041,586	4,313,374	2,379,400	348,812
Massachusetts	9,272,387	6,149,830	2,794,423	328,134
Michigan	14,243,597	8,314,919	5,498,768	429,910
Minnesota	6,531,198	4,056,664	2,203,771	270,762
Mississippi	2,576,457	1,556,216	852,422	167,818
Missouri	6,076,169	3,686,233	2,124,095	265,841
Montana	1,041,760	642,783	356,661	42,316
Nebraska	2,067,290	1,289,065[1]	625,145	153,080[1]
Nevada	1,978,480	1,235,986	679,607	62,886
New Hampshire	1,518,792	986,636	483,011	49,145
New Jersey	14,773,650	8,757,552	5,569,389	446,709
New Mexico	2,022,093	1,124,723	799,469	97,902
New York	30,884,292	20,964,737	9,079,172	840,384
North Carolina	8,209,954	5,205,893	2,541,222	462,839
North Dakota	668,814	398,009	215,431	55,374
Ohio	13,893,495	8,126,488	5,283,554	483,453
Oklahoma	3,750,542	2,170,392	1,339,283	240,866
Oregon	4,112,069	2,416,798	1,553,536	141,735
Pennsylvania	14,895,316	9,301,282	5,034,564	559,470
Rhode Island	1,465,703	945,243	482,636	37,824
South Carolina	4,492,161	2,688,234	1,557,201	246,726
South Dakota	796,133	472,130	282,454	41,549
Tennessee	5,170,379	3,331,249	1,584,632	254,498
Texas	26,546,557	16,045,613	9,176,521	1,324,423
Utah	2,250,339	1,455,772	659,359	135,208
Vermont	934,031	605,140	303,403	25,488
Virginia	8,335,805	5,144,215	2,865,859	325,731
Washington	6,782,127[1]	4,025,930[1]	2,426,047	330,150
West Virginia	2,157,568	1,325,664	706,549	125,355
Wisconsin	7,249,081	4,493,131	2,526,174	229,776
Wyoming	704,695	426,125	254,792	23,778
Outlying areas				
American Samoa	40,642	16,551	16,136	7,954
Guam	—	—	—	—
Northern Marianas	49,151	37,757	5,991	2,821
Puerto Rico	2,257,837	1,578,747	465,714	213,376
Virgin Islands	125,252	78,554	40,007	6,691

—Not available.

[1]Value affected by redistribution of reported values to correct for missing data items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

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Table 4. Percentage distribution of current expenditures for public elementary and secondary schools, by function and state: School year 2000–01

State	Within-state percentage distribution		
	Instruction	Support services	Noninstruction
United States[1]	61.5	34.3	4.2
Alabama	61.7	31.5	6.8
Alaska	57.5	39.1	3.4
Arizona	57.1	36.3	6.6
Arkansas	61.1	33.3	5.6
California	62.2	34.0	3.8
Colorado	57.2	39.2	3.6
Connecticut	63.9	32.4	3.7
Delaware	60.8	34.6	4.6
District of Columbia	49.7	47.5	2.8
Florida	58.3	36.8	4.9
Georgia	63.4	31.4	5.1
Hawaii	60.2	33.9	5.9
Idaho	61.3	34.3	4.4
Illinois	59.7	37.0	3.3
Indiana	61.6	34.4	4.0
Iowa	58.6	34.0	7.5
Kansas	58.6	36.7	4.6
Kentucky	61.3	33.4	5.3
Louisiana	60.3	33.2	6.6
Maine	66.9	29.7	3.4
Maryland	61.3	33.8	5.0
Massachusetts	66.3	30.1	3.5
Michigan	58.4	38.6	3.0
Minnesota	62.1	33.7	4.1
Mississippi	60.4	33.1	6.5
Missouri	60.7	35.0	4.4
Montana	61.7	34.2	4.1
Nebraska[1]	62.4	30.2	7.4
Nevada	62.5	34.3	3.2
New Hampshire	65.0	31.8	3.2
New Jersey	59.3	37.7	3.0
New Mexico	55.6	39.5	4.8
New York	67.9	29.4	2.7
North Carolina	63.4	31.0	5.6
North Dakota	59.5	32.2	8.3
Ohio	58.5	38.0	3.5
Oklahoma	57.9	35.7	6.4
Oregon	58.8	37.8	3.4
Pennsylvania	62.4	33.8	3.8
Rhode Island	64.5	32.9	2.6
South Carolina	59.8	34.7	5.5
South Dakota	59.3	35.5	5.2
Tennessee	64.4	30.6	4.9
Texas	60.4	34.6	5.0
Utah	64.7	29.3	6.0
Vermont	64.8	32.5	2.7
Virginia	61.7	34.4	3.9
Washington[1]	59.4	35.8	4.9
West Virginia	61.4	32.7	5.8
Wisconsin	62.0	34.8	3.2
Wyoming	60.5	36.2	3.4
Outlying areas			
American Samoa	40.7	39.7	19.6
Guam	—	—	—
Northern Marianas	76.8	12.2	5.7
Puerto Rico	69.9	20.6	9.5
Virgin Islands	62.7	31.9	5.3

—Not available.

[1]Distribution affected by redistribution of reported values to correct for missing items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Table 5. Student membership and current expenditures per pupil in membership for public elementary and secondary schools, by function and state: School year 2000–01

State	Fall 2000 student membership	Current expenditures per pupil in membership			
		Total	Instruction	Support services	Noninstruction
United States	47,203,539[1]	$7,376[1,2]	$4,539[1,2]	$2,528[1]	$309[1,2]
Alabama	739,992[1]	5,885[1]	3,629[1]	1,854[1]	402[1]
Alaska	133,356	9,216	5,300	3,603	312
Arizona	877,696	5,278	3,012	1,915	351
Arkansas	449,959	5,568	3,400	1,856	311
California	6,140,814[1]	6,987[1]	4,343[1]	2,379[1]	266[1]
Colorado	724,508	6,567	3,755	2,574	238
Connecticut	562,179	10,127	6,469	3,286	372
Delaware	114,676	8,958	5,448	3,102	408
District of Columbia	68,925	12,046	5,982	5,726	339
Florida	2,434,821	6,170	3,600	2,270	300
Georgia	1,444,937	6,929	4,394	2,178	357
Hawaii	184,360	6,596	3,973	2,236	387
Idaho	245,117	5,725	3,511	1,963	250
Illinois	2,048,792	7,643	4,565	2,826	251
Indiana	989,267	7,630	4,700	2,623	308
Iowa	495,080	6,930	4,059	2,353	518
Kansas	470,610	6,925	4,061	2,543	321
Kentucky	665,850	6,079	3,725	2,033	320
Louisiana	743,089	6,037	3,638	2,003	396
Maine	207,037	8,232	5,506	2,446	280
Maryland	852,920	8,256	5,057	2,790	409
Massachusetts	975,150	9,509	6,307	2,866	336
Michigan	1,720,626[1]	8,278[1]	4,832[1]	3,196[1]	250[1]
Minnesota	854,340	7,645	4,748	2,580	317
Mississippi	497,871	5,175	3,126	1,712	337
Missouri	912,744	6,657	4,039	2,327	291
Montana	154,875	6,726	4,150	2,303	273
Nebraska	286,199	7,223	4,504[2]	2,184	535[2]
Nevada	340,706	5,807	3,628	1,995	185
New Hampshire	208,461	7,286	4,733	2,317	236
New Jersey	1,313,405	11,248	6,668	4,240	340
New Mexico	320,306	6,313	3,511	2,496	306
New York	2,882,188	10,716	7,274	3,150	292
North Carolina	1,293,638	6,346	4,024	1,964	358
North Dakota	109,201	6,125	3,645	1,973	507
Ohio	1,835,049	7,571	4,428	2,879	263
Oklahoma	623,110	6,019	3,483	2,149	387
Oregon	546,231	7,528	4,424	2,844	259
Pennsylvania	1,814,311	8,210	5,127	2,775	308
Rhode Island	157,347	9,315	6,007	3,067	240
South Carolina	677,411	6,631	3,968	2,299	364
South Dakota	128,603	6,191	3,671	2,196	323
Tennessee	909,161[1]	5,687[1]	3,664[1]	1,743[1]	280[1]
Texas	4,059,619	6,539	3,952	2,260	326
Utah	481,485	4,674	3,024	1,369	281
Vermont	102,049	9,153	5,930	2,973	250
Virginia	1,144,915	7,281	4,493	2,503	285
Washington	1,004,770	6,750[2]	4,007[2]	2,415	329
West Virginia	286,367	7,534	4,629	2,467	438
Wisconsin	879,476	8,243	5,109	2,872	261
Wyoming	89,940	7,835	4,738	2,833	264
Outlying areas					
American Samoa	15,702	2,588	1,054	1,028	507
Guam	32,473	—	—	—	—
Northern Marianas	10,004	4,913	3,774	599	282
Puerto Rico	612,725	3,685	2,577	760	348
Virgin Islands	19,459	6,437	4,037	2,056	344

— Not available.

[1] Prekindergarten students imputed, affecting total student count and per pupil expenditure calculation.

[2] Value affected by redistribution of reported expenditure values to correct for missing data items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Table 6. Current expenditures for instruction for public elementary and secondary education, by state: School year 2000–01

[In thousands of dollars]

State	Total	Salaries	Employee benefits	Purchased services	Tuition to out-of-state and private schools	Supplies	Other
United States	$214,239,936[1]	$154,436,273[1]	$39,502,080[1]	$6,422,880[1]	$2,453,411[1]	$10,396,510[1]	$1,028,781[1]
Alabama	2,685,185	1,920,297	495,374	66,477	1,743	190,735	10,557
Alaska	706,834	467,642	130,028	39,513	0	40,477	29,173
Arizona	2,644,051	1,906,875[1]	475,746[1]	72,334[1]	49,074[1]	126,109[1]	13,913[1]
Arkansas	1,529,997	1,149,953	258,404	37,658	3,457	75,550	4,976
California	26,669,527	19,033,888	4,812,906	925,743	441,551	1,448,534	6,904
Colorado	2,720,856	2,011,050	360,832	63,770	39,745	183,043	62,418
Connecticut	3,636,781	2,547,048	655,895	105,809	217,480	106,074	4,475
Delaware	624,720	429,192	124,996	18,051	12,542	38,299	1,640
District of Columbia	412,276	284,503	30,728	9,849	74,637	11,772	788
Florida	8,765,578	5,932,501	1,542,786	748,482	87	449,795	91,926
Georgia	6,348,453	4,529,768	1,450,419	83,673	2,770	276,079	5,743
Hawaii	732,495	530,554	117,031	33,380	0	37,095	14,434
Idaho	860,621	615,109	175,866	21,174	485	47,734	252
Illinois	9,353,629	6,801,454	1,651,528	262,997	158,047	426,452	53,151
Indiana	4,649,180	3,122,306	1,316,108	53,630	31	148,136	8,969
Iowa	2,009,507	1,485,095	380,228	51,197	14,513	75,403	3,071
Kansas	1,910,980	1,495,455	277,487	35,921	1,464	92,714	7,939
Kentucky	2,480,235	1,864,736	432,668	51,513	208	118,495	12,615
Louisiana	2,703,004	1,977,404	531,207	41,138	153	139,084	14,017
Maine	1,140,002	737,464	254,982	45,566	57,179	39,106	5,706
Maryland	4,313,374	2,986,065	925,061	98,669	158,679	128,496	16,405
Massachusetts	6,149,830	4,493,638	1,135,571	71,267	226,433	216,683	6,238
Michigan	8,314,919	5,666,668	1,974,436	290,651	52	334,602	48,511
Minnesota	4,056,664	2,978,205	743,214	141,707	29,691	138,198	25,649
Mississippi	1,556,216	1,138,861	287,917	31,891	3,236	89,231	5,080
Missouri	3,686,233	2,750,210	544,164	82,165[1]	0	292,007	17,687[1]
Montana	642,783	455,772	118,162	20,343	815	45,743	1,949
Nebraska	1,289,065[1]	933,525[1]	232,112	43,243	18,429	49,687	12,070
Nevada	1,235,986	860,805	249,815	14,334	461	50,395	60,177
New Hampshire	986,636	676,554	176,178	23,806	74,161	33,588	2,349
New Jersey	8,757,552	6,161,143	1,606,223	127,626	431,143	333,755	97,661
New Mexico	1,124,723	824,988	205,214	22,264	1	72,069	187
New York	20,964,737	15,571,677	3,981,122	735,248	0	673,372	3,318
North Carolina	5,205,893	4,011,793	810,940	103,588	0	274,414	5,158
North Dakota	398,009	286,531	77,464	11,282	1,585	19,784	1,364
Ohio	8,126,488	5,718,711	1,574,855	242,167	89,732	388,234	112,788
Oklahoma	2,170,392	1,618,558	339,153	35,392	0	170,254	7,035
Oregon	2,416,798	1,560,477	594,930	85,819	23,624	142,664	9,283
Pennsylvania	9,301,282	6,749,599	1,619,533	414,328	133,415	371,581	12,825
Rhode Island	945,243	687,435	183,619	11,355	36,353	26,052	430
South Carolina	2,688,234	1,949,364	510,164	58,461	398	140,553	29,293
South Dakota	472,130	334,214	78,322	21,950	5,313	30,843	1,487
Tennessee	3,331,249	2,420,304	487,326	52,186	0	360,523	10,911
Texas	16,045,613	12,501,223	1,726,671	465,736	31,835	1,188,924	131,225
Utah	1,455,772	983,315	359,515	30,037	190	75,423	7,291
Vermont	605,140	399,144	108,333	32,034	42,709	20,981	1,940
Virginia	5,144,215	3,777,922	1,047,378	94,409	2,056	216,059	6,391
Washington	4,025,930[1]	2,858,290	766,554	182,694	7,094[1]	183,040	28,257
West Virginia	1,325,664	886,262	358,070	20,318	271	60,639	104
Wisconsin	4,493,131	3,058,774	1,114,534	72,992	59,867	174,660	12,304
Wyoming	426,125	293,957	90,309	17,044	700	23,370	745
Outlying areas							
American Samoa	16,551	11,518	2,227	1,256	0	1,121	429
Guam	—	—	—	—	—	—	—
Northern Marianas	37,757	26,834	7,215	2,710	0	960	38
Puerto Rico	1,578,747	1,284,707	173,077	6,248	0	17,392	97,322
Virgin Islands	78,554	60,440	16,543	179	0	1,362	29

—Not available.

[1]Value affected by redistribution of reported values to correct for missing data items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Table 7. Total expenditures for public elementary and secondary education and other related programs, by state: School year 2000–01

[In thousands of dollars]

State	Total	Current expenditures	Facilities acquisition and construction	Replacement equipment	Other programs	Interest on debt
United States	$411,518,072[1]	$348,170,327	$39,155,180	$7,962,571[1]	$6,064,862[1]	$10,165,131[1]
Alabama	5,075,425	4,354,794	461,455	70,611	104,322	84,244
Alaska	1,405,783	1,229,036	132,675	17,890	6,643	19,539
Arizona	6,837,290[1]	4,632,539	1,528,345	279,378[1]	33,405[1]	363,622
Arkansas	2,809,612	2,505,179	166,833	71,780	8,867	56,954
California	50,549,119	42,908,787	5,349,981	1,011,048	884,682	394,620
Colorado	5,721,045	4,758,173	557,604	118,829	43,477	242,962
Connecticut	6,633,858[1]	5,693,207	601,014	100,237	107,271[1]	132,129
Delaware	1,191,951	1,027,224	112,938	22,097	15,650	14,043
District of Columbia	1,051,014[1]	830,299	163,272	20,835	11,742	24,867[1]
Florida	18,752,867	15,023,514	2,633,833	238,219	462,334	394,967
Georgia	11,865,052	10,011,343	1,392,000	229,274	51,358	181,077
Hawaii	1,410,119	1,215,968	76,272	42,758	33,606	41,515
Idaho	1,564,207	1,403,190	90,024	36,497	3,998	30,498
Illinois	18,932,238	15,658,682	2,077,555	560,592	144,436	490,973
Indiana	9,084,055	7,548,487	691,386	154,652	58,425	631,104
Iowa	3,918,833	3,430,885	291,076	114,134	25,274	57,463
Kansas	3,591,632	3,258,807	85,253	134,193	3,482	109,898
Kentucky	4,339,910	4,047,392	40,501	127,568	48,319	76,130
Louisiana	5,017,490	4,485,878	313,162	97,110	19,040	102,300
Maine	1,902,758	1,704,422	110,677	29,900	19,453	38,307
Maryland	7,966,173	7,041,586	729,632	94,159	19,844	80,951
Massachusetts	9,833,455	9,272,387	49,480	130,685	127,887	253,016
Michigan	17,266,301	14,243,597	1,742,659	361,314	353,580	565,151
Minnesota	8,104,831	6,531,198	783,749	193,256	298,993	297,635
Mississippi	2,885,800	2,576,457	139,772	86,781	20,525	62,265
Missouri	7,148,100	6,076,169	488,536	228,750	144,478	210,168
Montana	1,123,812	1,041,760	43,955	19,165	7,441	11,490
Nebraska	2,378,237	2,067,290	180,919	82,997	3,420	43,612
Nevada	2,702,909	1,978,480	502,522	74,177	13,784	133,946
New Hampshire	1,723,025	1,518,792	142,742	24,220	4,257	33,015
New Jersey	16,571,448	14,773,650	1,222,613	153,610	174,057	247,518
New Mexico	2,375,194	2,022,093	280,371	24,502	14,333	33,894
New York	35,703,439	30,884,292	2,302,144	355,577	1,295,289	866,137
North Carolina	9,920,176[1]	8,209,954	1,274,116	155,386	46,011	234,710[1]
North Dakota	739,258	668,814	32,444	24,661	5,819	7,519
Ohio	16,327,367	13,893,495	1,241,876	468,187	420,683	303,126
Oklahoma	4,082,423	3,750,542	211,148	61,125	22,254	37,354
Oregon	4,677,930	4,112,069	349,310	70,131	17,780	128,641
Pennsylvania	17,835,344	14,895,316	1,636,448	263,560	346,074	693,945
Rhode Island	1,538,412	1,465,703	8,491	19,099	17,924	27,195
South Carolina	5,539,077	4,492,161	752,176	107,920	59,273	127,547
South Dakota	961,630	796,133	101,190	42,617	3,132	18,559
Tennessee	6,280,529	5,170,379	770,193	131,568	29,795	178,594
Texas	32,885,506	26,546,557	4,303,632	592,151	221,309	1,221,856
Utah	2,750,282	2,250,339	319,269	48,375	64,514	67,786
Vermont	1,014,673	934,031	43,004	19,233	2,968	15,437
Virginia	9,690,316	8,335,805	877,685	235,326	52,271	189,229
Washington	8,152,660[2]	6,782,127[2]	902,302	137,494	40,657	290,079
West Virginia	2,348,364	2,157,568	77,294	69,022	33,650	10,830
Wisconsin	8,553,822	7,249,081	730,011	181,538	115,591	277,601
Wyoming	783,319	704,695	39,641	28,384	1,486	9,113
Outlying areas						
American Samoa	48,742	40,642	4,739	704	2,657	0
Guam	—	—	—	—	—	—
Northern Marianas	59,584	49,151	10,282	13	139	0
Puerto Rico	2,368,687	2,257,837	97	44,816	46,694	19,242
Virgin Islands	136,704	125,252	8,015	1,259	2,177	0

—Not available.

[1]Value contains imputation for missing data. Imputed value is less than 2 percent of total expenditures in any one state.

[2]Value affected by redistribution of reported values to correct for missing data items.

NOTE: Detail may not sum to totals because of rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2000–01.

Revenues and Expenditures by Public School Districts: School Year 1999–2000

Frank Johnson

This article was originally published as a Statistics in Brief report. The universe data are from the "School District Finance Survey (Form F-33)," part of the Common Core of Data (CCD). Technical notes and definitions from the original report have been omitted.

This report presents findings from the Common Core of Data (CCD) "School District Finance Survey." These data are collected annually from state education agencies through the Census Bureau "Survey of Local Government Finances: School Systems," also called the F-33. Data in the "School District Finance Survey" include revenues by source, expenditures by function and object, long-term and short-term debt, and student membership for each school district in the United States. These data were collected and edited between March 2001 and April 2002. This short report on school district revenues and expenditures is a companion to the state-level Statistics in Brief, *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1999–2000* (Johnson 2002), which presents total state and national spending on public elementary and secondary education.

Only regular education school districts reporting student counts and matching the CCD "Local Education Agency Universe Survey" file were included in this analysis.

Revenues per Student

In the 1999–2000 school year, the median school district received $7,693 per student in revenues from state, local, and federal sources (table 1). The median revenue per student indicates that half of the districts received less than $7,693 per student and half of the districts received more than $7,693 per student.

Revenues and expenditures of school districts vary both within states and across states. Reporting the revenue per student at the 10th percentile and the 90th percentile is one way of communicating this variation or disparity in revenues. The national revenue per student at the 10th percentile ($5,940) indicates that 10 percent of all school districts received $5,940 or less in revenues per student. At the 90th percentile, the top 10 percent of districts had revenues in excess of $11,952 per pupil. Eighty percent of all school districts received between $5,940 and $11,952 per student in revenues. The 90/10 ratio indicates the disparity between revenues at the 10th and 90th percentiles. The higher this factor, the wider the difference or disparity between revenues at the 10th and 90th percentiles. For the nation as a whole, revenues going to the 90th percentile school district were twice as high as revenues going to the 10th percentile school district.

The numbers of students and school districts included in the analysis are shown in table 1. Hawaii and the District of Columbia have only one school district each, so it was not possible to report revenues at the 10th and 90th percentiles, or to calculate a 90/10 ratio. The data on the numbers of students and districts within each state also show the variation in the organization of education across the country. For example, Florida, with over 2 million students, has 67 school districts, whereas Nebraska, with fewer than 300,000 students, has 570 school districts.

The median revenues per student varied from $5,354 per student in Mississippi to $14,842 in Alaska. The median revenues per student were lower in Mississippi, Tennessee, and Utah than those in 90 percent of the school districts in the country. The median revenues per student in Alaska, the District of Columbia, and Vermont were higher than the median revenues per student in 90 percent of the school districts in the country. The 90/10 ratio indicates that the variation in revenues per student was greatest in Montana, and lowest in Maryland and West Virginia.

Total Expenditures per Student

In 1999–2000, the median total expenditure by school districts in the nation was $7,463 per student (table 2). This included current operating expenditures, capital outlays for school construction and equipment, and expenditures that are for programs outside of elementary/secondary education such as adult education and community service programs. Total expenditures also include interest on long-term debt, payments to other school districts, and payments to state and local governments.

The data in tables 2 and 3 in the individual categories do not sum to the totals because the median district in total expenditures is not the same district that generates the median in the specific expenditure categories (such as current expenditures or capital outlay). The school district representing the median expenditure per student for current

expenditures ($6,464) is unlikely to be the same as the district with the total expenditure median of $7,463 per student.

Total expenditures per student ranged between $5,723 and $11,643 for 80 percent of the school districts in the country. School districts with the highest 10 percent of total expenditures per pupil spent twice as much money per student as those districts with the lowest 10 percent of expenditures. The range in per student spending was similar for instruction, support services, and current expenditures. Expenditures for noninstructional services indicated a somewhat wider variation in per pupil expenditures between districts with high noninstructional expenditures per pupil and districts with low noninstructional expenditures. This is possibly due to the inclusion of expenditures for enterprise operations that are only reported in 30 states.

Expenditures for capital outlay, programs other than elementary/secondary education, transfer payments, and interest on long-term debt have a large difference between per pupil expenditures in districts at the 90th percentile and the 10th percentile. Per student spending on capital outlay (school construction and equipment) in districts with per pupil expenditures above the 90th percentile was more than 17 times that of low-spending districts. Small districts or districts with stable student populations do not need to be able to make large expenditures for school construction, whereas large districts or districts experiencing a growing population of children need to spend more money on school construction. Often, districts will build several schools at the same time, showing a large expenditure for capital outlays one year and small expenditures for subsequent years.

Per pupil spending for programs other than elementary/secondary education was more than 20 times greater in high-spending districts than the national median ($143 vs. $7). The adult education and community service programs that make up most of the other program spending do not exist in many school districts. At least 10 percent of all school districts do not have programs other than elementary and secondary education, nor do they have interest payments or payments to other school districts or governments.

Payments to other school districts are not included in the total expenditures reported here. In most cases, these are transfer payments to educate children in other districts. These amounts are reported as payments to other districts by the sending district and are included in the current expenditures reported by the receiving district. The students are only counted by the receiving district, which actually educates the child. Thus, reporting the expenditure for only the receiving district leads to more accurate per pupil estimates.

Median total expenditures per student ranged from $14,320 in Alaska to $5,624 in Arkansas (table 3). The median total expenditure per student was over $10,000 in Alaska, New Jersey, New York, and the District of Columbia. Median per pupil expenditures for classroom instruction ranged from $7,963 in Alaska to $3,029 in Utah. With the exception of Alaska, the eight states with the highest median expenditures per student for instruction were in the Northeast.[1] Median per student expenditures for capital projects (primarily school construction) ranged from $1,237 in the District of Columbia to $127 in Rhode Island.

Current Expenditures per Student

Because of the variation in programs run by school districts and the large swings in school construction expenditures, researchers typically use current expenditures when reporting and comparing school district expenditures. Current expenditures are expenditures for the day-to-day operations of schools and school districts. They do not include expenditures for construction, equipment, debt financing, and programs outside of public elementary/secondary education.

Current expenditures per student by state are presented in table 4. The median expenditure per student for the nation was $6,464. Per pupil spending in districts at the 90th percentile was almost twice that of per pupil spending in districts at the 10th percentile (i.e., the 90/10 ratio was 1.9). Spending in districts at the 90th percentile was less than 50 percent higher than spending in districts at the 10th percentile in 23 states (i.e., the 90/10 ratio was less than 1.5). The median current expenditure per student in Alaska, the District of Columbia, and New York was larger than the current expenditure per student in 90 percent of all districts in the nation.

The five states with the highest 90/10 ratio in current expenditures per pupil were Alaska, Arizona, Montana, Nevada, and North Dakota. This ratio were lowest in Alabama, Delaware, Florida, Iowa, Maryland, and West Virginia. In these six states, current expenditures per

[1]The Northeast is made up of the following states: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

student at the 90th percentile were less than 25 percent greater than spending at the 10th percentile.

Variations in Types of Districts

District-level analyses and comparisons can be complicated by the variety of administrative structures that exist across the nation in regular school districts. States such as Florida, Maryland, Nevada, and West Virginia have large districts that are coterminous with counties and encompass all levels and types of public schools. School districts in other states may exist in small communities with only one school, or in larger communities where all elementary schools are in one school district and all secondary schools are in another. In some states, all special education schools are administered by a few specific districts; while in other states each district may have all kinds of different schools and programs.[2] This variety in the types of school districts makes comparison of school districts difficult.

The information presented in tables 1 through 4 is based on all regular education school districts reporting student counts that are reported on the CCD "Local Education Agency Universe Survey." Table 5 presents current expenditures per pupil in regular unified districts only. Unified districts are school districts with both elementary and secondary education programs. The median current expenditure per student for the nation was $6,389, with 80 percent of all districts ranging between $5,205 and $9,208. The 90/10 ratio was 1.8, indicating a slight reduction in variation of per student spending compared with all regular school districts (1.9) reported in table 4. In eight states, less than half of the school districts were unified (Arizona, California, Illinois, Montana, Nebraska, New Hampshire, New Jersey, and Vermont). In two states, Montana and Vermont, fewer than half of the students attended schools in unified districts. Of the five states listed above as having the widest disparity in current expenditures per student at the 10th and 90th percentiles, this disparity was reduced in Arizona, Montana, Nevada, and North Dakota when the analysis was limited to unified school districts.[3]

[2]Special education districts were not included in regular districts.

Reference

Johnson, F. (2002). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1999–2000* (NCES 2002–367). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

[3]The disparity in Alaska was not changed because all 53 of its districts are unified.

Data source: The NCES Common Core of Data (CCD), "School District Finance Survey (Form F-33)," 1999–2000.

For technical information, see the complete report:

Johnson, F. (2003). *Revenues and Expenditures by Public School Districts: School Year 1999–2000* (NCES 2003–407).

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To obtain the complete report (NCES 2003–407), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Table 1. Revenues per student for public elementary and secondary education, by state: School year 1999–2000

State	Revenues per student			90/10 ratio	Number of districts	Number of students
	10th percentile	Median	90th percentile			
United States	$5,940	$7,693	$11,952	2.0	14,073	46,248,784
Alabama	5,857	6,442	7,774	1.3	128	730,184
Alaska	8,886	14,842	20,935	2.4	53	132,822
Arizona	5,569	6,976	12,418	2.2	215	814,716
Arkansas	5,552	5,943	7,243	1.3	310	450,751
California	6,074	7,051	10,323	1.7	978	5,872,863
Colorado	6,237	7,579	11,526	1.8	176	707,436
Connecticut	8,911	10,165	13,332	1.5	166	530,363
Delaware	8,007	9,413	12,433	1.6	16	107,048
District of Columbia	†	12,456	†	†	1	70,762
Florida	6,365	7,051	8,641	1.4	67	2,377,271
Georgia	6,297	7,100	8,487	1.3	179	1,419,497
Hawaii	†	7,559	†	†	1	185,860
Idaho	5,297	6,696	9,033	1.7	113	245,226
Illinois	6,309	7,509	11,082	1.8	894	2,003,839
Indiana	7,187	7,930	9,371	1.3	292	987,214
Iowa	6,808	7,500	8,821	1.3	375	497,301
Kansas	6,503	7,824	9,770	1.5	304	469,377
Kentucky	5,944	6,582	7,473	1.3	176	646,467
Louisiana	5,603	6,274	7,209	1.3	66	750,755
Maine	7,375	9,093	14,400	2.0	225	208,589
Maryland	7,366	8,226	9,064	1.2	24	846,582
Massachusetts	7,272	8,988	12,806	1.8	303	934,652
Michigan	6,852	7,603	9,806	1.4	556	1,653,533
Minnesota	6,955	7,866	9,759	1.4	344	839,839
Mississippi	4,850	5,354	6,563	1.4	152	499,362
Missouri	5,650	6,717	9,217	1.6	522	906,066
Montana	5,148	7,400	14,022	2.7	452	157,381
Nebraska	4,640	7,524	10,970	2.4	570	286,399
Nevada	6,825	7,596	13,771	2.0	17	325,610
New Hampshire	6,603	8,695	14,275	2.2	163	203,178
New Jersey	9,427	11,374	15,223	1.6	552	1,255,634
New Mexico	6,334	8,445	11,880	1.9	89	324,489
New York	9,346	11,252	15,746	1.7	685	2,859,651
North Carolina	6,534	7,311	8,714	1.3	117	1,261,586
North Dakota	5,714	7,471	12,611	2.2	229	112,349
Ohio	6,045	6,926	9,698	1.6	610	1,822,564
Oklahoma	5,091	5,944	7,949	1.6	544	627,032
Oregon	6,704	7,495	14,231	2.1	197	542,739
Pennsylvania	7,424	8,315	10,128	1.4	500	1,782,444
Rhode Island	8,289	9,206	11,138	1.3	36	155,351
South Carolina	6,045	6,818	8,262	1.4	86	666,780
South Dakota	5,909	6,825	9,580	1.6	173	130,279
Tennessee	5,035	5,512	6,494	1.3	137	907,222
Texas	6,509	7,589	10,822	1.7	1,040	3,965,860
Utah	4,951	5,771	9,097	1.8	40	477,835
Vermont	7,956	12,279	19,146	2.4	243	99,609
Virginia	6,586	7,387	9,597	1.5	132	1,132,673
Washington	6,503	7,525	12,121	1.9	296	1,003,714
West Virginia	6,961	7,696	8,454	1.2	55	290,982
Wisconsin	7,860	8,864	10,302	1.3	426	877,165
Wyoming	7,627	9,555	13,753	1.8	48	91,883

†Not applicable.

NOTE: Only regular school districts matching the Common Core of Data "Local Education Agency Universe Survey" with student membership >0 were used in creating this table. The District of Columbia and Hawaii consist of only one school district each.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," fiscal year 2000.

Table 2. Total expenditures per pupil, for elementary and secondary education: School year 1999–2000

	Expenditures per student			
	10th percentile	Median	90th percentile	90/10 ratio
Total	$5,723	$7,463	$11,643	2.0
Current	5,169	6,464	9,783	1.9
Instruction	3,149	4,000	6,160	2.0
Support services	1,577	2,168	3,462	2.2
Noninstruction services	151	291	489	3.2
Capital outlay	115	440	1,985	17.2
Other programs	0	7	143	†
Payments to state and local governments	0	0	18	†
Interest on long-term debt	0	85	432	†
Payments to other school districts	0	45	559	†

†Not applicable.

NOTE: Only regular school districts matching the Common Core of Data "Local Education Agency Universe Survey" with student membership >0 were used in creating this table. Other programs include community services, adult education, and community colleges. Total expenditures do not include payments to other school districts. Detail does not sum to total. Statistics were calculated independently for each row.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," fiscal year 2000.

Table 3. Median school district expenditures per pupil, by function and by state: School year 1999–2000

State	Median per pupil expenditures						
	Total expenditures[1]	Current expenditures	Instruction expenditures	Capital outlay expenditures	Other programs and payments to other government agencies	Interest on debt expenditures	Payments to other districts[1]
United States	$7,463	$6,464	$4,000	$440	$12	$85	$45
Alabama	6,510	5,551	3,490	609	141	70	0
Alaska	14,320	12,909	7,963	1,082	29	0	0
Arizona	6,947	5,771	3,153	697	0	62	0
Arkansas	5,624	5,252	3,266	229	0	96	0
California	6,908	5,893	3,743	651	6	0	21
Colorado	7,555	6,421	3,734	573	0	123	111
Connecticut	9,427	8,736	5,654	212	13	198	115
Delaware	8,499	7,624	4,744	436	13	68	278
District of Columbia	12,137	10,874	4,498	1,237	25	0	0
Florida	7,055	5,574	3,166	1,189	103	79	0
Georgia	7,000	6,103	3,859	670	3	67	5
Hawaii	7,336	6,531	4,117	624	181	0	0
Idaho	6,631	5,629	3,451	418	0	86	0
Illinois	7,144	6,188	3,789	519	0	97	250
Indiana	7,637	6,303	3,830	606	568	27	211
Iowa	6,745	6,018	3,686	415	0	61	623
Kansas	7,293	6,528	3,548	443	10	46	249
Kentucky	6,764	5,788	3,560	587	99	152	0
Louisiana	6,311	5,611	3,379	379	21	89	0
Maine	8,382	7,722	5,095	186	23	34	210
Maryland	7,979	7,048	4,329	775	21	71	58
Massachusetts	8,632	7,988	5,397	142	1	112	256
Michigan	7,612	6,529	4,080	439	72	270	7
Minnesota	7,715	6,468	4,098	470	237	265	242
Mississippi	6,024	5,012	3,069	716	4	102	0
Missouri	6,506	5,679	3,533	417	48	64	51
Montana	6,907	6,463	4,069	165	0	0	0
Nebraska	7,163	6,508	4,420	368	0	0	25
Nevada	7,669	6,585	3,997	317	35	245	1
New Hampshire	7,909	7,222	4,600	219	0	111	214
New Jersey	10,814	9,777	5,926	441	49	106	209
New Mexico	8,204	7,085	3,696	895	15	106	0
New York	11,344	9,860	6,571	672	39	223	23
North Carolina	7,264	6,179	3,882	933	30	93	0
North Dakota	6,778	6,248	3,576	359	0	0	351
Ohio	6,603	5,870	3,549	408	70	42	24
Oklahoma	5,872	5,524	3,230	213	0	0	0
Oregon	7,341	6,748	4,155	234	0	45	2
Pennsylvania	8,031	6,827	4,303	367	14	366	368
Rhode Island	8,557	8,242	5,379	127	55	79	69
South Carolina	7,031	6,087	3,591	609	62	151	4
South Dakota	6,791	5,903	3,515	619	0	9	25
Tennessee	5,694	4,921	3,250	422	49	118	0
Texas	7,751	6,583	4,161	571	4	111	34
Utah	5,632	4,777	3,029	515	135	154	0
Vermont	7,933	7,541	4,906	166	0	97	3,948
Virginia	7,309	6,459	4,051	573	16	120	48
Washington	7,391	6,325	3,856	337	2	184	10
West Virginia	7,677	7,008	4,328	361	43	0	5
Wisconsin	8,743	7,465	4,646	478	125	322	52
Wyoming	9,039	8,053	4,703	692	2	87	0

[1]Total expenditures do not include payments to other school districts.

NOTE: Only regular school districts matching the Common Core of Data "Local Education Agency Universe Survey" with student membership >0 were used in creating this table. The District of Columbia and Hawaii consist of only one school district each. Instruction expenditures are included in current expenditures. This table reports the median school district expenditure for each category; therefore, totals do not equal the sum of the detail. Other programs include community services, adult education, and community colleges.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," fiscal year 2000.

Table 4. Current expenditures per student for public elementary and secondary education, by state: School year 1999–2000

State	Expenditures per student			90/10 ratio	Number of districts	Number of students
	10th percentile	Median	90th percentile			
United States	$5,169	$6,464	$9,783	1.9	14,073	46,248,784
Alabama	5,176	5,551	6,392	1.2	128	730,184
Alaska	7,776	12,909	17,629	2.3	53	132,822
Arizona	4,479	5,771	9,891	2.2	215	814,716
Arkansas	4,748	5,252	6,251	1.3	310	450,751
California	5,233	5,893	8,219	1.6	978	5,872,863
Colorado	5,221	6,421	9,634	1.8	176	707,436
Connecticut	7,783	8,736	10,916	1.4	166	530,363
Delaware	7,039	7,624	8,594	1.2	16	107,048
District of Columbia	†	10,874	†	†	1	70,762
Florida	5,185	5,574	6,351	1.2	67	2,377,271
Georgia	5,502	6,103	7,363	1.3	179	1,419,497
Hawaii	†	6,531	†	†	1	185,860
Idaho	4,669	5,629	8,059	1.7	113	245,226
Illinois	5,079	6,188	8,621	1.7	894	2,003,839
Indiana	5,764	6,303	7,347	1.3	292	987,214
Iowa	5,477	6,018	6,812	1.2	375	497,301
Kansas	5,325	6,528	8,481	1.6	304	469,377
Kentucky	5,156	5,788	6,645	1.3	176	646,467
Louisiana	5,093	5,611	6,414	1.3	66	750,755
Maine	6,499	7,722	11,372	1.7	225	208,589
Maryland	6,548	7,048	7,919	1.2	24	846,582
Massachusetts	6,770	7,988	10,731	1.6	303	934,652
Michigan	5,927	6,529	8,480	1.4	556	1,653,533
Minnesota	5,707	6,468	7,750	1.4	344	839,839
Mississippi	4,479	5,012	5,987	1.3	152	499,362
Missouri	4,830	5,679	7,245	1.5	522	906,066
Montana	4,585	6,463	12,318	2.7	452	157,381
Nebraska	4,899	6,508	9,798	2.0	570	286,399
Nevada	5,588	6,585	14,143	2.5	17	325,610
New Hampshire	5,935	7,222	9,228	1.6	163	203,178
New Jersey	8,113	9,777	12,570	1.5	552	1,255,634
New Mexico	5,367	7,085	10,477	2.0	89	324,489
New York	8,376	9,860	13,852	1.7	685	2,859,651
North Carolina	5,552	6,179	7,234	1.3	117	1,261,586
North Dakota	4,769	6,248	10,448	2.2	229	112,349
Ohio	5,250	5,870	7,474	1.4	610	1,822,564
Oklahoma	4,589	5,524	7,278	1.6	544	627,032
Oregon	6,023	6,748	10,603	1.8	197	542,739
Pennsylvania	5,905	6,827	8,373	1.4	500	1,782,444
Rhode Island	7,446	8,242	9,428	1.3	36	155,351
South Carolina	5,414	6,087	7,387	1.4	86	666,780
South Dakota	4,969	5,903	7,804	1.6	173	130,279
Tennessee	4,477	4,921	5,946	1.3	137	907,222
Texas	5,588	6,583	9,087	1.6	1,040	3,965,860
Utah	4,046	4,777	7,356	1.8	40	477,835
Vermont	6,175	7,541	10,169	1.6	243	99,609
Virginia	5,838	6,459	8,071	1.4	132	1,132,673
Washington	5,694	6,325	10,982	1.9	296	1,003,714
West Virginia	6,569	7,008	7,660	1.2	55	290,982
Wisconsin	6,515	7,465	8,688	1.3	426	877,165
Wyoming	6,811	8,053	10,476	1.5	48	91,883

†Not applicable.

NOTE: Only regular school districts matching the Common Core of Data "Local Education Agency Universe Survey" with student membership >0 were used in creating this table. The District of Columbia and Hawaii consist of only one school district each.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," fiscal year 2000.

Table 5. Current expenditures per student for unified districts, by state: School year 1999–2000

State	Expenditures per student			90/10 ratio	Number of unified districts	Percent of districts unified	Number of students	Percent of students in unified districts
	10th percentile	Median	90th percentile					
United States	$5,205	$6,389	$9,208	1.8	10,672	75.8	42,803,360	92.6
Alabama	5,176	5,551	6,392	1.2	128	100.0	730,184	100.0
Alaska	7,776	12,909	17,629	2.3	53	100.0	132,822	100.0
Arizona	4,536	5,369	8,130	1.8	97	45.1	526,611	64.6
Arkansas	4,748	5,252	6,251	1.3	310	100.0	450,751	100.0
California	5,322	5,823	8,080	1.5	345	35.3	4,322,985	73.6
Colorado	5,221	6,421	9,634	1.8	176	100.0	707,436	100.0
Connecticut	7,906	8,717	10,796	1.4	112	67.5	496,434	93.6
Delaware	7,039	7,624	8,594	1.2	16	100.0	107,048	100.0
District of Columbia	†	10,874	†	†	1	100.0	70,762	100.0
Florida	5,185	5,574	6,351	1.2	67	100.0	2,377,271	100.0
Georgia	5,516	6,091	7,078	1.3	172	96.1	1,416,732	99.8
Hawaii	†	6,531	†	†	1	100.0	185,860	100.0
Idaho	4,629	5,534	7,637	1.6	108	95.6	245,079	99.9
Illinois	5,146	6,009	7,273	1.4	412	46.1	1,278,862	63.8
Indiana	5,764	6,303	7,347	1.3	291	99.7	986,987	100.0
Iowa	5,477	6,018	6,812	1.2	375	100.0	497,301	100.0
Kansas	5,325	6,528	8,481	1.6	304	100.0	469,377	100.0
Kentucky	5,160	5,794	6,479	1.3	171	97.2	644,673	99.7
Louisiana	5,093	5,611	6,414	1.3	66	100.0	750,755	100.0
Maine	6,499	7,431	9,075	1.4	114	50.7	182,142	87.3
Maryland	6,548	7,048	7,919	1.2	24	100.0	846,582	100.0
Massachusetts	6,943	7,904	9,828	1.4	211	69.6	868,814	93.0
Michigan	5,958	6,543	8,393	1.4	525	94.4	1,651,526	99.9
Minnesota	5,707	6,448	7,653	1.3	328	95.3	837,491	99.7
Mississippi	4,474	5,008	5,976	1.3	149	98.0	498,277	99.8
Missouri	4,819	5,612	7,029	1.5	449	86.0	894,304	98.7
Montana	5,349	7,641	13,587	2.5	55	12.2	19,368	12.3
Nebraska	5,616	6,534	8,620	1.5	260	45.6	273,104	95.4
Nevada	5,588	6,551	10,784	1.9	16	94.1	325,505	100.0
New Hampshire	5,936	6,887	8,470	1.4	67	41.1	156,815	77.2
New Jersey	8,677	10,030	11,868	1.4	215	38.9	932,604	74.3
New Mexico	5,367	7,085	10,477	2.0	89	100.0	324,489	100.0
New York	8,333	9,757	13,589	1.6	640	93.4	2,812,412	98.3
North Carolina	5,552	6,179	7,234	1.3	117	100.0	1,261,586	100.0
North Dakota	4,769	6,082	8,389	1.8	174	76.0	108,977	97.0
Ohio	5,254	5,871	7,476	1.4	609	99.8	1,822,509	100.0
Oklahoma	4,597	5,455	7,179	1.6	431	79.2	604,821	96.5
Oregon	6,018	6,649	10,135	1.7	178	90.4	542,278	99.9
Pennsylvania	5,905	6,827	8,373	1.4	500	100.0	1,782,444	100.0
Rhode Island	7,446	8,242	9,331	1.3	32	88.9	153,087	98.5
South Carolina	5,414	6,087	7,387	1.4	86	100.0	666,780	100.0
South Dakota	4,969	5,897	7,675	1.5	171	98.8	129,211	99.2
Tennessee	4,522	4,920	5,946	1.3	125	91.2	890,020	98.1
Texas	5,586	6,535	8,923	1.6	977	93.9	3,955,978	99.8
Utah	4,046	4,777	7,356	1.8	40	100.0	477,835	100.0
Vermont	6,315	7,188	9,220	1.5	36	14.8	34,976	35.1
Virginia	5,838	6,459	8,071	1.4	132	100.0	1,132,673	100.0
Washington	5,701	6,288	9,469	1.7	248	83.8	994,015	99.0
West Virginia	6,569	7,008	7,660	1.2	55	100.0	290,982	100.0
Wisconsin	6,626	7,467	8,542	1.3	368	86.4	842,483	96.0
Wyoming	6,811	8,028	9,766	1.4	46	95.8	91,342	99.4

†Not applicable.

NOTE: Only regular school districts matching the Common Core of Data "Local Education Agency Universe Survey" with student membership >0 were used in creating this table. Unified school districts provide both elementary and secondary education services. The District of Columbia and Hawaii consist of only one school district each.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," fiscal year 2000.

School District Revenues for Elementary and Secondary Education: 1997–98

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***This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the Common Core of Data (CCD) "School District Finance Survey (Form F-33)" and the* 1990 School District Data Book.**

Introduction

The "School District Finance Survey (Form F-33)" is an annual collection of school district financial data that is part of the Common Core of Data (CCD). The F-33 collects data on revenues and expenditures for prekindergarten through grade 12 in public schools in approximately 15,500 local education agencies (LEAs) in the 50 states and the District of Columbia.

This report presents analyses of school district revenues for the 1997–98 school year. The F-33 data form the core of these analyses, but information is supplemented by data on selected school district demographic and fiscal characteristics from the *1990 School District Data Book*, prepared by the U.S. Census Bureau for the National Center for Education Statistics (NCES). The demographic and fiscal data are used to examine the relationship between selected district characteristics and revenues from different sources.[1]

This report is designed to address a number of questions about the financing of public elementary and secondary education at the state and district levels:

- How much money per pupil is raised for elementary and secondary education from federal, state, and local sources?
- What is the level of variation in revenues per pupil across school districts nationally and in each state?
- How do district demographic and economic characteristics relate to revenues per pupil nationally and in each state? How strong are these relationships?
- What proportion of funds for elementary and secondary education comes from federal, state, and local sources nationally and in each state? How do districts with different demographic and economic characteristics differ in their proportion of funds for education from different sources?

Analyses of school district revenues are presented for the nation and the states. The national analyses focus on school revenues in districts in different geographic regions, school districts of different sizes, school districts with different fiscal capacity to support education (measured as median household income and median value of owner-occupied housing), and school districts with different proportions of minority and school-age children in poverty. The state analyses focus on interdistrict variation in revenues per pupil and the relationship between revenues per pupil and the school district fiscal and demographic characteristics cited in the national analyses.

The analyses of revenues presented in this report are based on both actual dollars and cost-adjusted dollars. Cost adjustments are designed to take into account differences in the cost of education across school districts in a state. The cost adjustment used in these analyses is the Geographic Cost of Education Index (GCEI) (Fowler and Monk 2001; Chambers 1998). The GCEI uses data from three separate categories of school inputs: certified school personnel, noncertified school personnel, and nonpersonnel school items. The index reflects how much more or less it costs in different geographic locations to recruit and employ comparable school personnel, as well as the varying cost of nonpersonnel items such as purchased services, supplies and materials, furnishings and equipment, travel, utilities, and facilities.

In the remainder of this summary, the major findings of the report are presented using cost-adjusted revenues. Findings based on actual revenues are included in the body of the report, with both actual dollars and cost-adjusted dollars reported in the text.

National Findings

The national findings focus on three areas: geographic differences in revenues, revenues in school districts of different sizes, and the relationship between revenues and selected school district fiscal and demographic characteristics.

Revenues in different geographic regions

Cost-adjusted school district revenues for elementary and secondary education totaled $319.7 billion in 1997–98, or about $7,028 per pupil. State governments provided nearly half the total (49 percent)—about $155 billion, or about

[1]While more current census data on district characteristics are now available, the 1990 census data were used in these analyses because they were the most current data available at the time the report was planned and written. The national analyses include districts in all states, even when the percentage of districts with demographic and fiscal data was less than 50 percent of the total districts in the state. The state analyses, however, only include the 40 states in which at least 50 percent of the districts had demographic and fiscal data.

$3,413 per pupil. Local governments provided the second-largest share (45 percent)—about $144 billion, or about $3,167 per pupil. The federal government provided the remaining 6 percent of revenues—more than $20 billion, or about $447 per pupil.

School districts in the Northeast started out with the highest cost-adjusted local revenues per pupil—$4,699 per pupil in 1997–98. Even though state revenues per pupil were lowest in the Northeast—$3,201 per pupil—state and local revenues per pupil of $7,899 were still higher than in all other regions. Federal revenues per pupil of $380 were also lowest in the Northeast. However, even with lower federal revenues, the Northeast still had the highest total revenues per pupil. Put differently, school districts in the Northeast had an advantage in local revenues per pupil that was not offset when other regions obtained greater revenues from state and federal sources.

At the other end of the spectrum, school districts in the West had the lowest local revenues per pupil—$2,114 per pupil in 1997–98. After the addition of state revenues of $3,515 per pupil, school districts in the West still had the lowest state and local revenues per pupil—$5,629. Federal revenues were an additional $436 per pupil in the West. However, even with the addition of state and federal revenues, total revenues of $6,066 per pupil in school districts in the West were still lower than in all other regions of the country.

Revenues in school districts of different sizes

The smallest school districts (those with fewer than 1,000 students) consistently had the highest revenues per pupil for education in cost-adjusted dollars. These school districts had local revenues of $3,819 per pupil, which was $652 per pupil above the national average. With state revenues of $4,087 per pupil, state and local revenues per pupil were more than $1,300 higher than the national average—$7,906 in the smallest school districts, compared to the national average of $6,580. Federal revenues per pupil, which averaged $499 in the smallest districts, were also about $52 above the national average of $447. As a result, total revenues per pupil in these districts were nearly $1,400 above the national average—$8,405, compared to $7,028. In other words, the revenue advantage that the smallest school districts had from local revenues more than doubled with the addition of state and federal revenues.

In contrast, the largest school districts (those with 10,000 or more students) consistently had the lowest revenues per pupil. These school districts had the lowest local revenues per pupil ($2,896) and the second-lowest state revenues per pupil ($3,328), compared with districts with fewer students. State and local revenues per pupil of $6,224 were therefore lower in the largest districts than in smaller districts. Although federal revenues of $478 per pupil were only slightly lower than in the smallest districts, the largest school districts still had the lowest total revenues per pupil ($6,702 in 1997–98) of all size categories.

Relationship between revenues and school districts' fiscal capacity

For the nation as a whole, school districts with higher median household income tended to raise more cost-adjusted revenues per pupil from local sources than lower income districts. School districts with median household income of less than $20,000 had local revenues per pupil ($1,975) that were less than half of these revenues in districts with household income of $35,000 or more ($4,113). However, revenues per pupil from state sources were negatively related to household income and tended to partially offset the revenue advantage of high-income districts. As a result, while combined state and local revenues per pupil were positively related to household income, the relationship was much weaker than the relationship between household income and local revenues per pupil. Federal revenues per pupil had an even stronger negative relationship with district household income ($881 in the lowest income districts and $210 in the highest income districts). Consequently, there was a small negative relationship between household income and total revenues per pupil. Put differently, higher state and federal revenues per pupil in school districts with lower household income tended to offset the local revenue advantage of high-income school districts.

Similar results were found when the median value of a school district's owner-occupied housing was used as the measure of fiscal capacity. A positive relationship between median value of owner-occupied housing and local revenues per pupil was counterbalanced by a stronger negative relationship between housing value and state revenues per pupil. As a result, there was only a small positive relationship between median value of owner-occupied housing and state and local revenues per pupil. A negative relationship between housing value and federal revenues per pupil changed the relationship between housing value and total revenues per pupil from slightly positive to slightly negative. Again, higher state and federal revenues per pupil in school districts with lower median housing values offset the

local revenue advantage of school districts with higher housing values.

Relationship between revenues and minority and poor children

School districts with higher concentrations of minority and poor children tended to raise less money from local revenues than districts with lower concentrations of poor and minority children. However, higher state revenues per pupil in these districts partially offset the local revenue advantage in districts with smaller proportions of poor and minority children. With federal revenues per pupil having a strong positive correlation with a district's proportion of poor and minority children, total revenues per pupil had only a small negative relationship with percent minority enrollment and no significant relationship with proportion of children in poverty. In short, the local revenue disadvantage of districts with high proportions of poor and minority children was offset by higher revenues per pupil from state and federal sources.

State Findings

The state findings focus on two areas. The first is interdistrict variation in revenues per pupil. This area was selected because the amount of interdistrict variation in revenues per pupil is often used as a measure of the equity of state school finance systems. States with little variation in revenues per pupil are generally considered to have more equitable systems than those with large interdistrict variation (Berne and Stiefel 1984).

The second area is the relationship between revenues per pupil and selected school district fiscal and demographic characteristics. Fiscal characteristics such as median household income and median housing values were selected because school district wealth, as measured by these variables, has been found in many states to be associated with differences in funding for education (Parrish, Hikido, and Fowler 1998). States in which finance arrangements produce either no relationship or only a weak positive relationship between district wealth and school funds are generally considered to be more equitable than those that have a strong positive relationship between district wealth and revenues (Berne and Stiefel 1984). Demographic characteristics such as proportion of children in poverty and proportion of minority enrollment were also selected because of equity considerations. States in which revenues are positively associated with students' special educational needs (e.g., needs based on poverty) are generally regarded as more equitable than those that do not provide additional funding to address the educational needs of poor students (Goertz and Odden 1999).

Interdistrict variation in revenues per pupil

This study created a synthesized measure of variation that combined state rankings on three standardized variation measures to assess the amount of interdistrict variation in revenues per pupil across school districts.[2] Based on their rankings on this synthesized measure, states were then organized into 4 groups with approximately 12 states in each group. States with the lowest rankings had the smallest overall variation in revenues per pupil; states with the highest rankings had the largest variation. This analysis includes 49 states; the District of Columbia and Hawaii are not included because each has only one school district.

The 12 states with the largest variation in unadjusted local revenues per pupil were Alaska, Arizona, California, Connecticut, Idaho, Illinois, Kansas, Massachusetts, Michigan, New Jersey, Texas, and Wyoming. Five of the 12 states (Alaska, Arizona, California, Idaho, and Wyoming) were in the West, 3 (Connecticut, Massachusetts, and New Jersey) were in the Northeast, and 3 (Illinois, Kansas, and Michigan) were in the Midwest. There was only one state in this group from the South (Texas).

When state revenues were added to local revenues, only 4 of the original 12 states (Alaska, Illinois, Kansas, and Wyoming) were in the group with the largest overall variation in state and local revenues per pupil. In other words, the addition of state revenues tempered the variation in local revenues per pupil. The states with the largest variation in state and local revenues per pupil were now distributed nearly evenly across three regions—Alaska, Montana, New Mexico, and Wyoming in the West; Illinois, Kansas, and North Dakota in the Midwest; and New Hampshire, New York, and Vermont in the Northeast.

With the addition of federal revenues, 5 of the 12 states with the largest variation in local revenues per pupil (Alaska, Arizona, Illinois, Kansas, and Texas) continued to show the largest variation in total revenues per pupil. The largest concentration of states was in the Midwest (Illinois, Kansas, Missouri, Nebraska, and North Dakota) and the West (Alaska, Arizona, Montana, and Wyoming), with only one state from the South (Texas) in this group.

[2]The three measures used to create the synthesized measure were the restricted range ratio, the coefficient of variation, and the Gini coefficient. The method used to create the synthesized measure is explained more fully in the introduction to the complete report.

Looking at cost-adjusted revenues per pupil, 6 of the 13 states with the smallest variation in cost-adjusted local revenues per pupil were in the South (Delaware, Florida, North Carolina, South Carolina, Tennessee, and West Virginia), 5 were in the Midwest (Indiana, Iowa, Missouri, North Dakota, and South Dakota), 1 was in the Northeast (New Hampshire), and 1 was in the West (Nevada).

When state revenues were added to local revenues, the balance shifted more heavily to the South. Eight of the 12 states with the smallest overall variation in state and local revenues per pupil were in this region (Arkansas, Delaware, Florida, Kentucky, North Carolina, South Carolina, Tennessee, and West Virginia); only 4 states were outside the South—3 of them in the Midwest (Indiana, Iowa, and Wisconsin). With the addition of federal revenues, 9 of the 12 states with the smallest overall variation in cost-adjusted total revenues per pupil were in the South. Alabama and Louisiana were added to the group, and South Carolina was eliminated. Put differently, disparities in local revenues per pupil, which were less pronounced in the South, were lessened even further with the addition of state and federal revenues.

Relationship between revenues and school districts' fiscal capacity

Analyses of the relationship between school districts' fiscal capacity and revenues per pupil were conducted in the 40 states in which at least 50 percent of the school districts had demographic and fiscal data. In 34 of these 40 states, there was a positive relationship between median household income and cost-adjusted local revenues per pupil. There was, however, a negative relationship between district median household income and state revenues per pupil in 39 states. As a result, there was a positive relationship between median household income and state and local revenues per pupil in just 10 states. Higher state revenues per pupil overcame the local revenue advantage of high-income districts. Federal revenues reinforced this trend. After the addition of federal revenues per pupil, which had a negative relationship to district income in 39 states, only 7 states still showed a positive relationship between household income and total revenues per pupil. In 21 states, lower income districts actually tended to have higher total revenues per pupil.

District fiscal capacity, measured as median value of owner-occupied housing, showed similar relationships to district revenues. Median value of owner-occupied housing was positively related to local revenues per pupil in 35 of the 40 states with available data and negatively related to state and federal revenues per pupil in 40 and 34 states, respectively. When state and federal revenues were added to local revenues, the local revenue advantage of districts with higher median housing values was overcome by larger amounts of state aid in most states. Only 10 states continued to show a positive relationship between median housing value and cost-adjusted state and local revenues per pupil, and only 7 states showed a positive relationship between median housing value and total revenues per pupil.

Relationship between revenues and district poverty and proportion of minority enrollment

School district poverty was negatively related to cost-adjusted local revenues per pupil in 33 of the 40 states with available data. State and federal revenues per pupil were positively related to school district poverty in 36 and 38 states, respectively. With the addition of state revenues to local revenues, there was still a negative relationship between district poverty and state and local revenues per pupil in nine states. With the addition of state and federal funds, there was a negative relationship between district poverty and revenues per pupil in only three states. Higher state and federal revenues in high-poverty districts offset their local revenue disadvantage in a substantial number of states.

Similar results were found for minority enrollment. In 17 of the 40 states with available data, there was a negative relationship between proportion of minority enrollment and cost-adjusted local revenues per pupil. However, state revenues per pupil were positively related to minority enrollment in 19 states. With the addition of state revenues, the proportion of minority enrollment was negatively related to state and local revenues per pupil in only 12 states. Federal revenues per pupil were also positively related to the proportion of minority enrollment in 36 states. As a result, with the addition of federal revenues, there was a negative relationship between proportion of minority enrollment and total revenues per pupil in only 6 states, and a positive relationship in 18 states. Higher state

and federal revenues in school districts with large minority enrollments worked to overcome the local revenue advantage of school districts with relatively small minority populations.

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Community College Students: Goals, Academic Preparation, and Outcomes

Gary Hoachlander, Anna C. Sikora, and Laura Horn

This article was originally published as the Executive Summary of the Postsecondary Education Descriptive Analysis Report of the same name. The sample survey data are from the Beginning Postsecondary Students Longitudinal Study (BPS), National Education Longitudinal Study of 1988 (NELS:88), and National Postsecondary Student Aid Study (NPSAS).

In 1999–2000, 42 percent of all undergraduates were enrolled at public 2-year institutions, commonly known as community colleges (Horn, Peter, and Rooney 2002). The lower fees and open-access policies at community colleges have broadened access to postsecondary education for students facing such barriers to entry as poor academic performance in high school, limited English-language skills or other basic skill deficiencies, or financial hardship (Grubb 1999). Community colleges also serve students seeking additional job skills, technical certification, and enrichment opportunities. However, while access to community colleges is easily attained, research has shown that a significant number of students who enter community colleges do not complete a formal credential (Berkner, Horn, and Clune 2000).

Currently, federal performance measures, as reflected in the Higher Education Act and the Carl D. Perkins Vocational and Technical Education Act, have been primarily limited to completion of formal credentials such as certificates and associate's degrees. However, because community colleges serve students with a wide range of goals and academic preparation (Berkner, Horn, and Clune 2000), holding community colleges accountable only for student attainment may understate their effectiveness in meeting a variety of objectives. This report provides information on the varying goals, preparation, and outcomes of community college students.

This report uses data from the 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01),

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the National Education Longitudinal Study of 1988 (NELS:88/2000), and the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000). Each data set provides a different perspective on the major questions of the analysis. BPS is a representative sample of all undergraduates, regardless of when they graduated from high school, who enrolled in postsecondary education for the first time in 1995–96 and were last interviewed in 2001, about 6 years later. This survey provides the latest data on degree attainment and persistence, as well as 4-year college transfer rates and outcomes. The analysis sample used in this report is limited to BPS students whose first postsecondary enrollment was in a community college.

The NELS survey comprises a grade cohort, which means all respondents are in one grade or are about the same age. NELS respondents were first surveyed in 1988 when they were in the eighth grade, and were followed through high school and college. They were last interviewed in 2000, about 8 years after most of the participants had graduated from high school. Unlike the BPS cohort, which includes first-time students regardless of age, the NELS cohort reflects a more "traditional" group of students—those who enroll in postsecondary education soon after high school graduation. In the analysis for this report, only 1992 high school graduates who first enrolled in a community college within 2 years of high school graduation are included. NELS provides several measures of high school academic preparation to determine how students' academic performance is associated with their college outcomes.

Finally, the NPSAS survey consists of a representative sample of all students enrolled in postsecondary education at one point in time—the 1999–2000 academic year—including students of all ages as well as students who entered postsecondary education at various points in time and who are at different stages of their studies. NPSAS is used to examine the degree objectives of first-time and continuing community college students enrolled in 1999–2000. Drawing upon these three data sets, this study addresses the following research questions:

1. What percentage of students enrolled in community colleges seeks to complete a formal credential, either in a public 2-year institution or through transfer to a 4-year college or university?
2. How do different types of community college students differ in their intentions to complete a formal credential?
3. Among those intending to complete a certificate or degree or transfer to a 4-year institution, what percentage actually do so, and how do rates of completion vary among different types of students?
4. Among students intending to complete a formal credential, what is the relationship between rates of completion and different levels of postsecondary preparedness?
5. When students are asked about the impact of their postsecondary education on various aspects of their labor market participation, how do the responses of students who completed a formal credential differ from those of students who left without a certificate or degree?

The findings of this study suggest that success rates for community college students, as measured by completion of a formal degree or certificate or transfer to a 4-year institution, are roughly 50 to 60 percent among students who enroll with intentions to earn a credential or transfer.

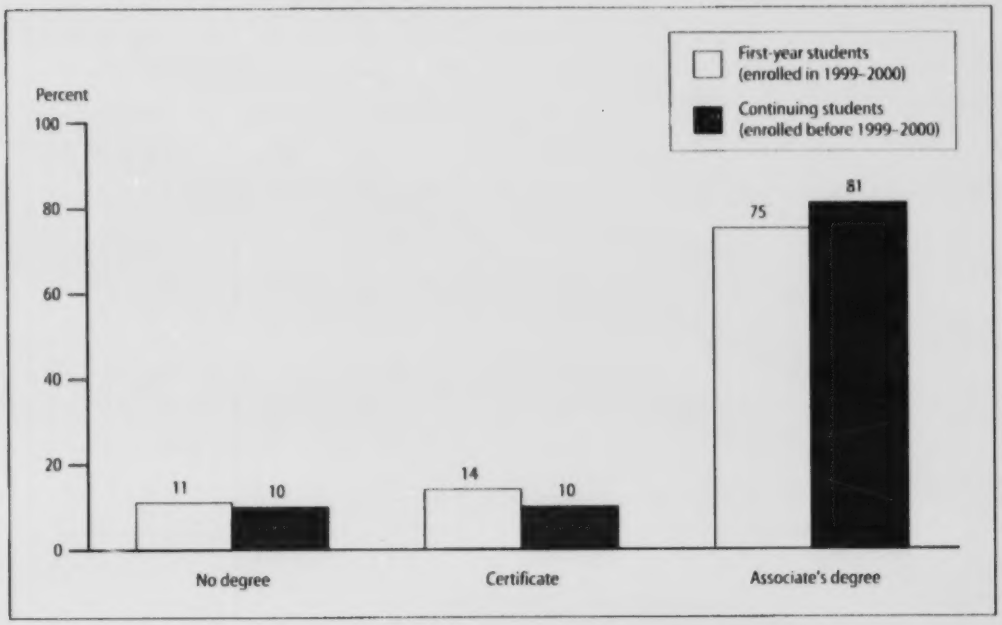
Community College Students Seeking Formal Credentials

Results from all three data sets suggest that roughly 9 in 10 community college students enroll intending to obtain a formal credential or to transfer to a 4-year institution. As shown in figure A, among all NPSAS undergraduates enrolled in public 2-year institutions in 1999–2000, 11 percent of first-year students and 10 percent of continuing students reported no degree or transfer intentions. Similarly, among BPS students who first enrolled in public 2-year institutions in 1995–96, 11 percent reported no intentions of earning a degree or transferring to a 4-year institution (figure B). NELS 1992 high school graduates were asked what their highest degree expectations were when they were in 12th grade. Among those who first enrolled in public 2-year institutions, 10 percent reported that they were not seeking a degree and that they expected to complete less than 2 years of postsecondary education and nearly two-thirds reported that they were seeking a bachelor's degree or higher (figure C).

Completion and Persistence Rates Among Students Seeking Formal Credentials

This study first examined the outcomes of BPS students whose first enrollment was in a community college. Among students who intended to obtain a formal credential or to transfer to a 4-year institution, 11 percent had attained a bachelor's degree or higher, 17 percent had earned an

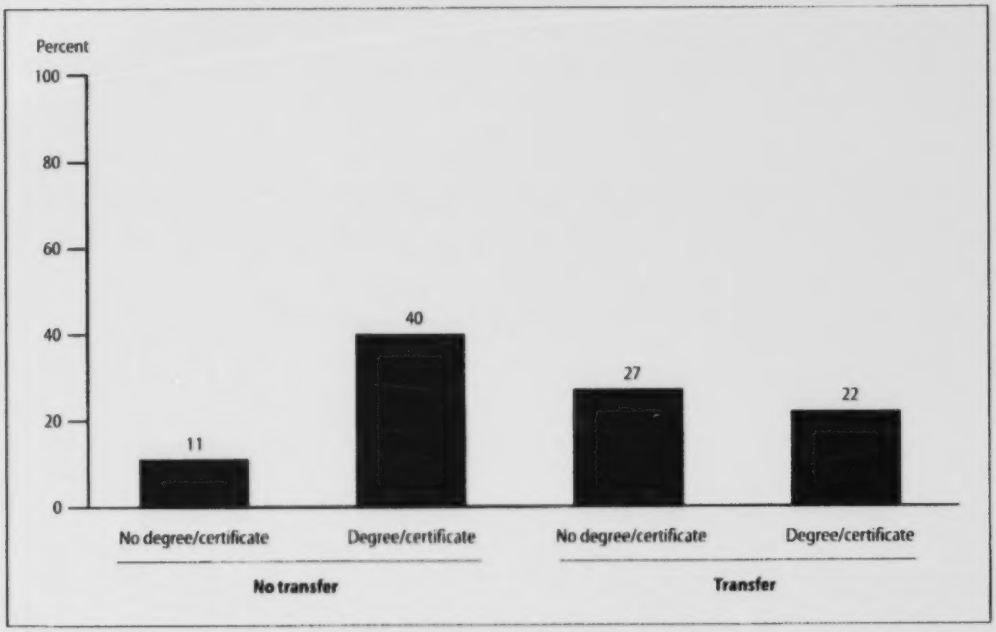
Figure A. Percentage distribution of 1999–2000 undergraduates in public 2-year institutions according to their current degree program and when they enrolled



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

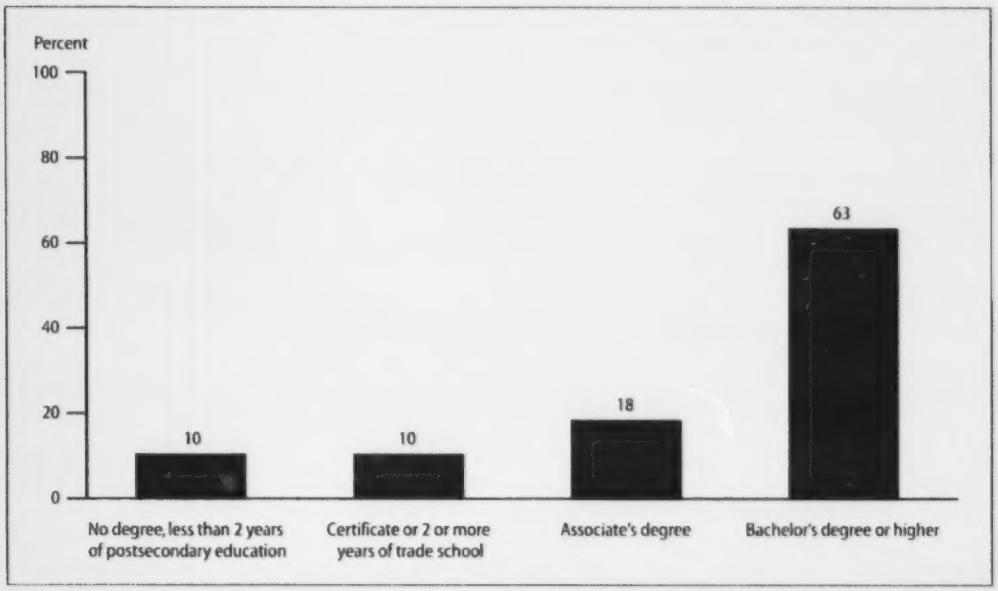
Figure B. Percentage distribution of 1995–96 beginning postsecondary students first enrolled in public 2-year institutions according to their degree/certificate and transfer expectations



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

Figure C. Percentage distribution of 1992 high school graduates first enrolled in public 2-year institutions by December 1994 according to highest level of education they expected to complete as reported in 1992



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000, Data Analysis System."

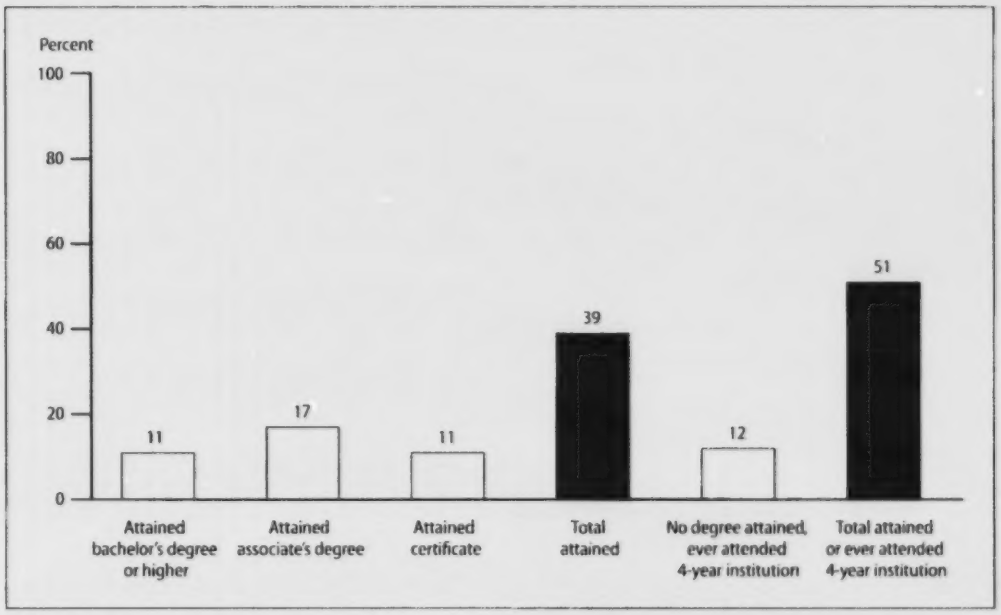
associate's degree, and 11 percent had earned a certificate as of 2001, for a total attainment rate of 39 percent (figure D). An additional 12 percent had transferred to a 4-year institution but had not yet attained a degree. In total, 51 percent of BPS community college students who intended to earn a degree or to transfer to a 4-year institution had fulfilled these expectations within 6 years of their initial enrollment.

The study then examined NELS students, who represent more traditional students who enroll in a community college soon after high school graduation. As shown in figure E, among students who intended to obtain a degree, 21 percent had attained a bachelor's degree or higher, 18 percent had attained an associate's degree, and 11 percent had earned a vocational certificate or license as of 2000 (6 to 8 years after entry), for a total attainment rate of 50 percent. An additional 13 percent had not attained a formal credential but had attended a 4-year institution. Thus, in total, about 63 percent of students intending to obtain a formal credential had either done so or had attended a 4-year institution.

Time to degree

About two-thirds of all community college students attend primarily on a part-time basis (Berkner, Horn, and Clune 2000). Therefore, it takes them longer to complete associate's and bachelor's degrees than the typical time expected—2 years and 4 years, respectively, of full-time study. The length of certificate programs varies, but they are typically 1-year full-time programs (Berkner, Horn, and Clune 2000). Among BPS students, the average time from first enrollment to attainment for students who had attained an associate's degree as their highest credential (16 percent of all students) was about 3 1/2 years (41 months). Students who had completed a certificate (10 percent of all students) took an average of about 2 1/2 years to complete their program. Students who had completed a bachelor's degree within the 6 years of the survey period (10 percent of all students) took nearly 5 years (56 months) to complete the degree. However, about 8 percent of BPS community college students, or roughly 44 percent of those in bachelor's degree programs, were still enrolled in a 4-year institution and had not yet completed a degree. These students required more than 6 years to complete their bachelor's degrees.

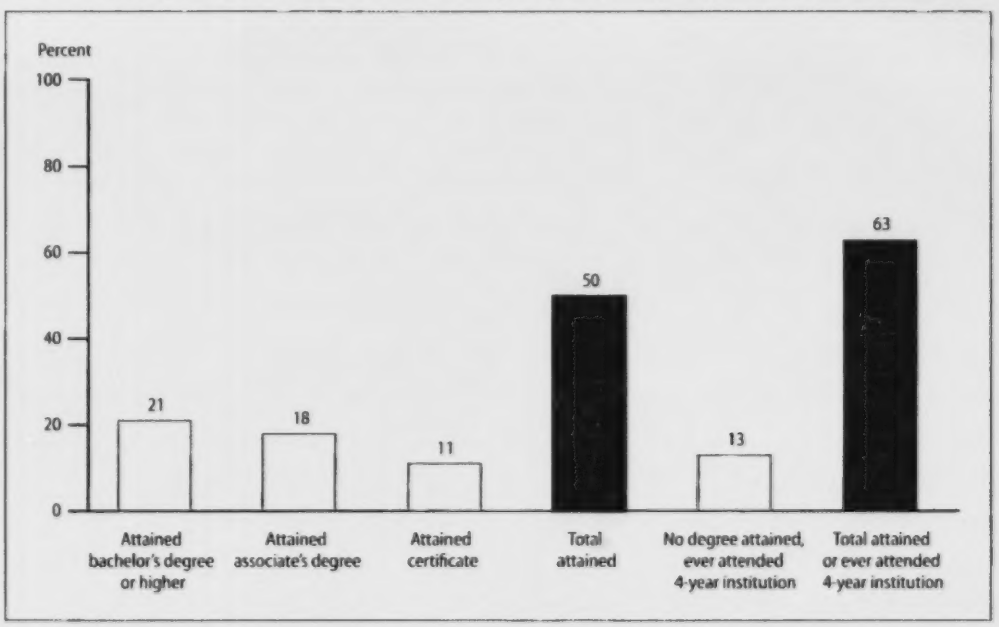
Figure D. Percentage distribution of 1995–96 beginning postsecondary students first enrolled in public 2-year institutions who intended to obtain a credential according to highest postsecondary education attained by 2001



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

Figure E. Percentage distribution of 1992 high school graduates first enrolled in public 2-year institutions by December 1994 who intended to obtain a credential according to highest postsecondary education attained by 2000



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000, Data Analysis System."

Transfer students

An analysis of the rates at which BPS community college students transferred to 4-year institutions revealed that a total of about 29 percent had transferred. Among students who had reported bachelor's degree intentions when they first enrolled, 51 percent had transferred. Among those who had transferred, about 8 in 10 had either attained a bachelor's degree (35 percent) or were still enrolled in a 4-year institution (44 percent) as of 2001 (figure F). Moreover, community college students with bachelor's degree intentions were not likely to earn an associate's degree before transferring. Among transfers, roughly one-fifth of bachelor's degree seekers had earned an associate's degree before transferring.

Completion Rates and Postsecondary Preparedness

Many NELS 1992 high school graduates who began their postsecondary education in community colleges faced challenging obstacles to completing a credential. In 1988, when NELS students were in the eighth grade, 39 percent who enrolled in community colleges were "at risk" (had one or more risk factors) of dropping out of high school. In addition, roughly half (54 percent) entered college with one or more characteristics that placed them at risk of not completing their postsecondary education.

Proficiency test scores also showed that many NELS community college students began their postsecondary education with relatively low ability levels in mathematics and reading. Thirty percent of these students entered community college with 12th-grade mathematics proficiency scores at Level 1 or below. These students could perform simple arithmetical operations on whole numbers but could not perform simple operations on decimals, fractions, powers, or roots. In addition, 44 percent of NELS community college students enrolled with 12th-grade reading proficiency scores at Level 1 or below. These students had basic comprehension skills, but they could not make relatively simple inferences from reading a text beyond the author's main point.

While many NELS 1992 high school graduates entered community college lacking strong academic preparation, about one-third (36 percent) were academically qualified to attend a 4-year institution. These are students who could possibly have enrolled in a 4-year college or university based on several measures of academic preparation, including SAT scores, rank in high school class, NELS achievement test scores, and the rigor of their coursetaking. In addition, 17 percent and 24 percent, respectively, had scored at the highest proficiency levels tested in reading and mathematics as seniors in high school.

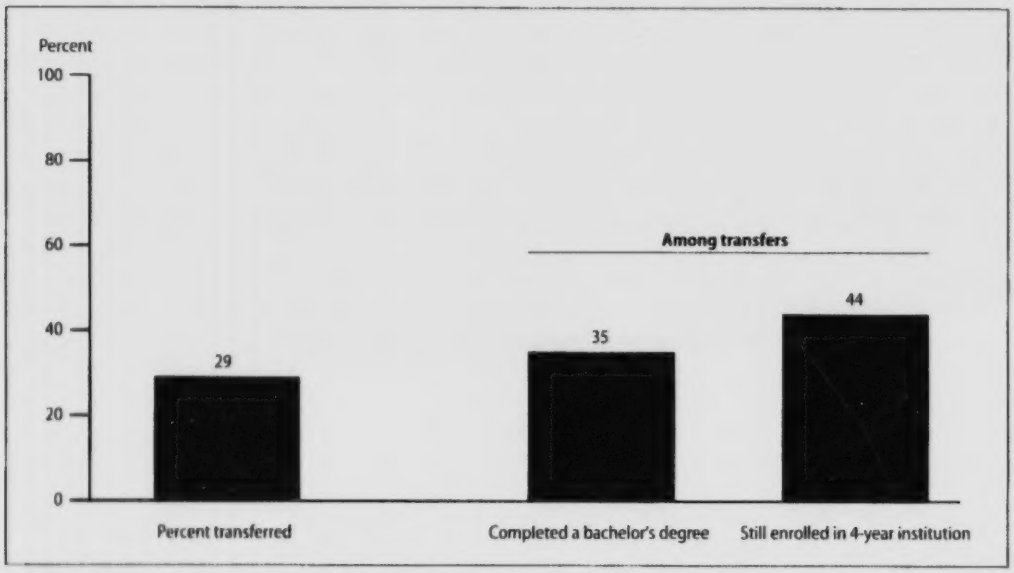
Taking into account students' academic profiles, college students who were better prepared academically to enter postsecondary education tended to complete a certificate or degree or attend a 4-year institution more often than those who were less prepared. For example, among those who scored at the highest proficiency level tested in mathematics as seniors in high school, about three-quarters had either attained a degree or certificate or had enrolled in a 4-year institution, compared with roughly half (54 percent) of those who scored at the lowest levels. Similarly, among community college students who were academically qualified for enrollment in a 4-year college, roughly three-quarters had either attained a degree (including 36 percent who had attained a bachelor's degree) or had enrolled in a 4-year institution, compared with 55 percent of those who were either not qualified or only minimally qualified to attend a 4-year college.

Community College Completion and Employment Outcomes

BPS community college students who were no longer enrolled 3 years after first attending were asked several questions about the impact of their education on their salary and other employment experiences. Earlier research on the BPS survey showed that 44 percent of community college students had left in 1998 with no credential, while about 8 percent had left with a certificate or an associate's degree (Berkner, Horn, and Clune 2000, table 2.1a). Despite the small percentage of completers, there were some obvious differences between these students and their peers who had not completed with respect to reporting positive employment outcomes. As shown in figure G, 63 percent of those who had attained a formal credential by 1998 reported that their postsecondary education resulted in salary increases, compared with 29 percent who had not attained a credential. Similarly, 71 percent of those who had attained a credential reported that their postsecondary enrollment had led to increased job responsibilities, while 48 percent of those who had not attained one reported the same.

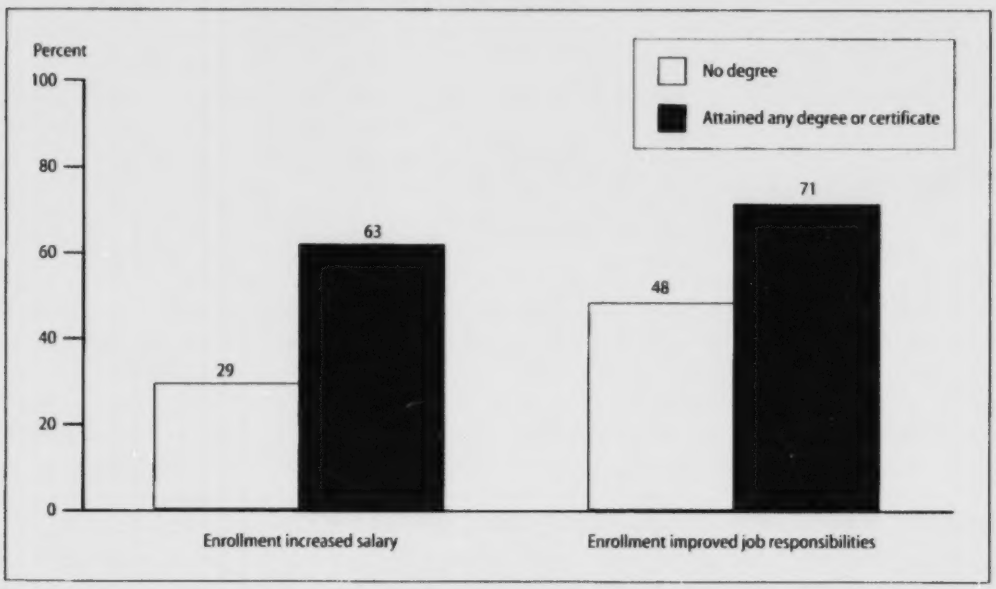
NELS students were also asked about their employment outcomes when they were last interviewed in 2000 (i.e., 6 to 8 years after they had begun their postsecondary education). Community college students who had earned either a certificate or an associate's degree or had transferred

Figure F. Among 1995–96 beginning postsecondary students first enrolled in public 2-year institutions, the percentage who transferred to a 4-year institution, and among transfers, the percentage who completed a bachelor's degree or were still enrolled as of 2001



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

Figure G. Among 1995–96 beginning postsecondary students first enrolled in public 2-year institutions and who were no longer enrolled, the percentage who reported their enrollment resulted in a salary increase or improved their job responsibilities as reported in 1998, by degree attainment



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

to a 4-year institution were more likely to report positive employment outcomes than those who had left without a credential or had not transferred. In addition, community college students who had transferred to a 4-year institution but had not earned a degree were also more likely than those who had left without transferring to report positive outcomes.

Conclusions

Although educational objectives vary among students enrolled in community colleges, most community college students say that they desire a formal credential, either from the community college or through transfer to a 4-year institution. Nearly 90 percent of students beginning their postsecondary education in public 2-year institutions express an intent to attain a certificate or degree (including transfer).

In both the NELS and BPS surveys, roughly one-fifth of community college students with any degree or transfer intentions had earned an associate's degree. However, when success is defined as any degree attainment or 4-year transfer, about one-half (51 percent) of all community college students (BPS) and nearly two-thirds (63 percent) of more traditional students (NELS) had achieved successful outcomes.

At the same time, however, because about two-thirds of community college students attend primarily on a part-time basis, the average amount of time to complete an associate's degree was about 3 1/2 years (as measured by BPS). Those who earned a certificate took about 2 1/2 years to complete the credential, and roughly 44 percent of bachelor's degree seekers were still enrolled after 6 years.

The study also revealed that about 29 percent of all first-time community college students transferred to a 4-year college or university during the 6-year survey period, including about one-half of those with bachelor's degree intentions. For those who did transfer, about 8 in 10 had either attained a bachelor's degree or were still working toward that degree 6 years after they first enrolled in a community college.

Finally, while many students who had left community college without completing a credential reported that their postsecondary education favorably affected their employment, students who had earned a credential were more likely to report positive impacts than students who had not earned one.

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Data sources: The NCES 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01), National Education Longitudinal Study of 1988 (NELS:88/2000), and 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

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Racial/Ethnic Differences in the Path to a Postsecondary Credential

Lisa Hudson

This article was originally published as an Issue Brief. The sample survey data are from the National Education Longitudinal Study of 1988 (NELS:88).

Educational achievement and attainment are often of central importance to education policymakers because of their relationship to economic outcomes. Racial/ethnic equity in these education measures is often of particular interest. Jacobson et al. (2001), for example, summarized differences in educational achievement and attainment between Black and White students,[1] as well as the relationship between achievement and attainment differences (e.g., educational achievement was found to mitigate race differences in college completion).[2]

This Issue Brief focuses on racial/ethnic differences in educational attainment. These differences are well documented, with Blacks and Hispanics typically having lower attainment rates than Whites, and Asians having a higher rate than other groups (U.S. Department of Education 2002, pp. 80–81; Ingels et al. 2002). These racial/ethnic differences represent the culmination of differences at various progression points in the education pipeline. For example, students from different racial/ethnic backgrounds have different likelihoods of graduating from high school and attending college, with Blacks and Hispanics typically having lower rates of educational progress (as measured by these indicators) than their White counterparts, and Asians having a higher rate of progress (at least for college attendance) (U.S. Department of Education 2002, p. 73; Sanderson et al. 1996; Jacobson et al. 2001).

This Issue Brief tracks student progress along the path from high school to a postsecondary credential, examining where in this path racial/ethnic differences arise. Specifically, this Issue Brief uses data from the National Education Longitudinal Study of 1988, "Fourth Follow-up, 2000" (NELS:88/2000) to examine various education milestones along the path to a postsecondary credential. This NELS:88/2000 survey tracks students who were in the eighth grade in 1988, and who were thus 8 years beyond their expected (1992) high school graduation in 2000.

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The Issue Brief first examines three milestones that are traditional indicators of student progress—the on-time attainment of a regular high school diploma;[3] enrollment in a postsecondary institution within the year following high school graduation (hereafter referred to as immediate enrollment); and attainment of a postsecondary credential within the "scheduled" time frame[4] (i.e., within 4 years of enrollment for a bachelor's degree, 2 years for an associate's degree, and 1 year for a postsecondary certificate). Although this "on-time" schedule might be indicative of a traditional postsecondary path, few students follow it. For example, among NELS:88/2000 students, only 12 percent attained a postsecondary credential through this path.[5]

The traditional path is not the only route to obtaining a postsecondary credential. The American education system is relatively flexible, providing numerous opportunities for adults to further their education at later stages of their lives (e.g., high school equivalency programs such as the GED, open enrollments at community colleges, college programs for working adults). In fact, as of 2000, 15 percent of the NELS:88/2000 students who completed high school had done so through an alternate means, 30 percent of those who enrolled in a postsecondary institution had delayed their entry, and 59 percent of those who obtained a postsecondary credential had done so over an extended period (beyond the scheduled time frame). The second part of this Issue Brief examines student progress through high school and postsecondary education as of 2000 to show how this flexibility within the education system affects progress.

[1] Throughout this Issue Brief, the terms Black and White are used as shorthand for non-Hispanic Black and non-Hispanic White, respectively. Asian is used as shorthand for Asian or Pacific Islander.

[2] Socioeconomic status is also related to race/ethnicity and may mitigate attainment differences among racial/ethnic groups (see, e.g., Jacobson et al. 2001).

[3] In this context, an on-time high school diploma is in reference to eighth-graders. Students who had been held back (or otherwise stayed back) prior to the eighth grade are counted as graduating on time as long as they were not also held back between the eighth grade and high school graduation. The on-time high school graduation measure used in this Issue Brief is from student transcripts; all other measures are based on students' self-reports.

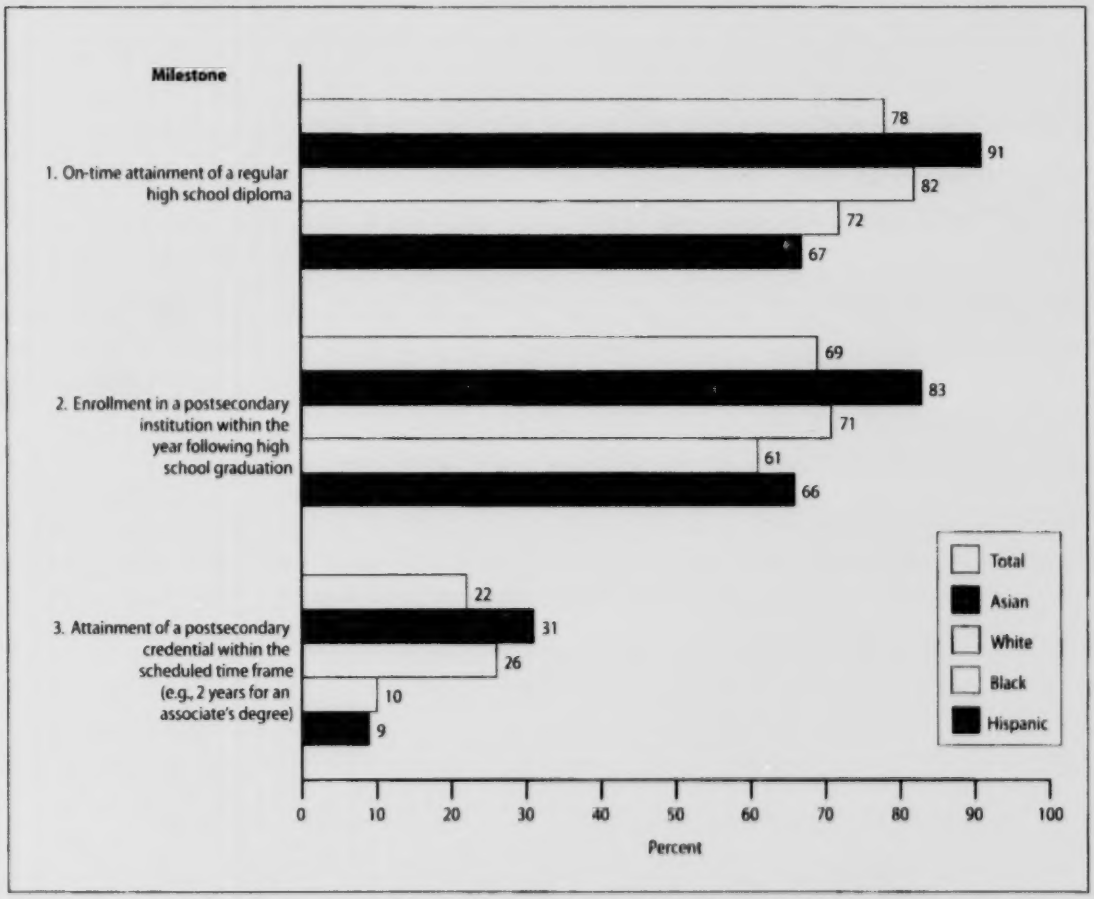
[4] These milestones may not describe typical paths; for example, 59 percent of postsecondary graduates fail to complete their credential within the scheduled time frame. However, these milestones are related to persistence factors. Berkner, Cuccaro-Alamin, and McCormick (1996) found that the following factors lowered postsecondary student persistence and attainment: being a high school dropout or GED recipient, delaying enrollment by a year or more, and attending part time.

[5] Unless otherwise noted, all findings reported in this brief are from analyses of NELS:88/2000.

Racial/Ethnic Differences in Meeting Traditional Milestones

Figure 1 shows the progress of NELS:88/2000 students through each traditional education milestone. This figure shows the percentage of students of each racial/ethnic group who met each milestone, *given that* they had met the previous milestone(s). Racial/ethnic differences emerged at the first milestone, the receipt of a regular on-time high school diploma. Asian students were more likely than White, Black, and Hispanic students to receive a regular on-time diploma, with 91 percent doing so. White students also were more likely than Black and Hispanic students to receive a regular on-time diploma, with 82 percent of White students doing so compared to 72 percent of Black students and 67 percent of Hispanic students. When these on-time high school graduates reached the next milestone—immediate entry to a postsecondary institution—similar (but not identical) patterns emerged. Asian students who graduated from high school with a regular on-time diploma were more likely than White, Black, and Hispanic students to immediately enroll in a postsecondary institution. White students were more likely to do so than their Black counterparts, but no differences were detected in the rates of immediate enrollment between White and Hispanic students.

Figure 1. Percentage of 1988 eighth-graders meeting each traditional milestone, of those who met the previous milestone(s), by student race/ethnicity



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000."

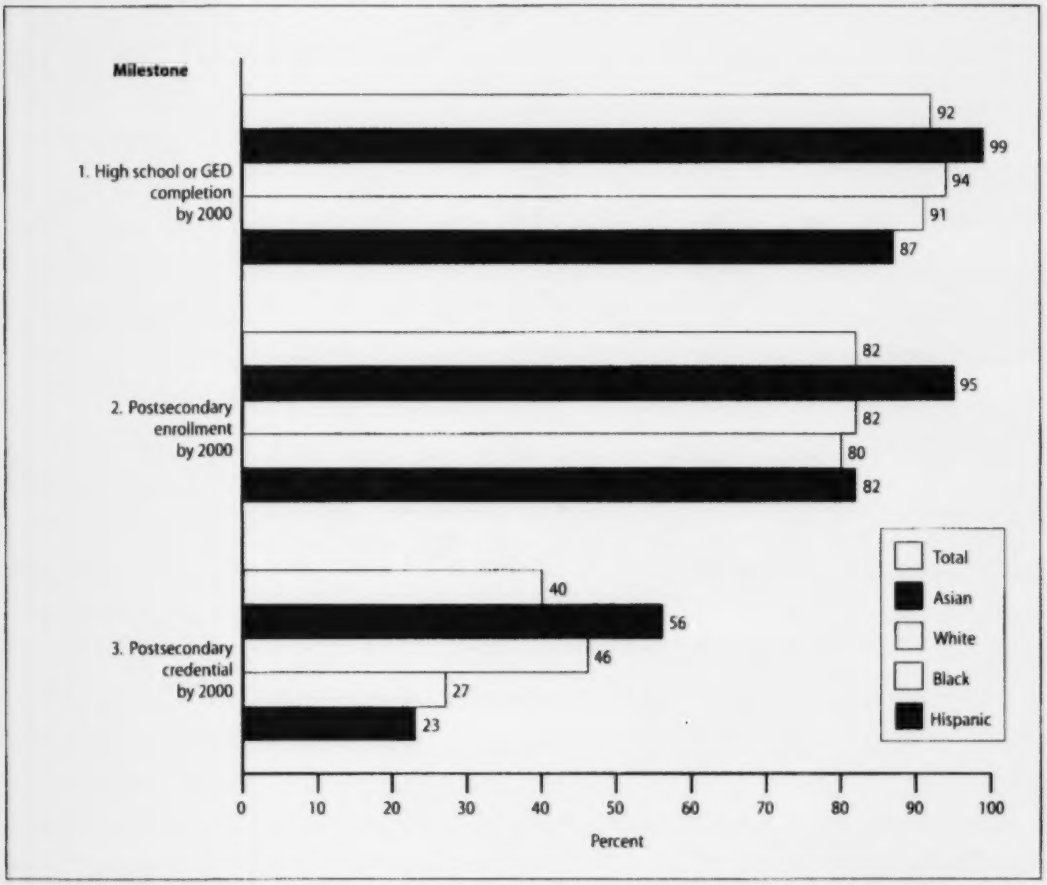
Finally, at the third milestone, Black and Hispanic students who had graduated on time and immediately enrolled in a postsecondary institution were again found to have lower attainment rates than their Asian and White peers. Although about one-quarter of both Asian and White students who had received a regular on-time high school diploma and had immediately enrolled in a postsecondary institution obtained an on-time credential, no more than 10 percent of their Black or Hispanic peers did so. The net result of these differences in progress is that 23 percent of *all* Asian students who were in the eighth grade in 1988 completed a postsecondary credential through the traditional path, compared to 15 percent of all White students, 4 percent of all Black students, and 4 percent of all Hispanic students.[6]

Racial/Ethnic Differences in Attainment as of 2000

To examine progress regardless of the route taken, figure 2 shows the percentage of students who met three less

[6]The percentage for Asians is significantly higher than the percentages for all other groups; the percentage for Whites is significantly higher than the percentages for Blacks and Hispanics. Analysis of credentials by level was beyond the scope of this issue Brief; however, the reader should bear in mind that the differences observed here may include racial/ethnic differences in credential level as well as in the attainment of a credential. For example, among NELS:88/2000 students, 51 percent of Asians obtained a bachelor's degree or higher by 2000, compared to 34 percent of Whites, 17 percent of Blacks, and 15 percent of Hispanics (Ingels et al. 2002).

Figure 2. Percentage of 1988 eighth-graders meeting each less stringent milestone, of those who met the previous milestone(s), by student race/ethnicity



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000."

stringent milestones—completing high school, enrolling in a postsecondary institution, or obtaining a postsecondary credential by the year 2000—given that they had met each previous milestone(s). The first milestone allows the completion of high school through alternative means such as the GED; allowing this second-chance route to high school completion (along with more time) results in a significantly greater high school completion rate among each group of students. Asian students, however, still had a higher completion rate than other students, and White students had a higher completion rate than Hispanic students (although there were no longer detectable differences between White and Black students). At the second milestone, more students in each racial/ethnic group who completed high school enrolled in a postsecondary institution by 2000 than had enrolled immediately after high school; although Asian students still had higher enrollment rates than the three other student groups, the enrollment rate for Whites was not significantly higher than for Blacks or Hispanics. Finally, at the third milestone, obtaining a postsecondary credential, completion rates again were higher among each group of postsecondary entrants, but the differences for Asians and Whites versus Blacks and Hispanics remained.

Further, although the gaps in high school completion rates between Asians and their Black and Hispanic peers and between Whites and Hispanics were not eliminated, they were reduced when "nontraditional" completion was allowed in addition to on-time graduation with a regular diploma. Thus, nontraditional paths do seem to help reduce or eliminate at least some racial/ethnic attainment differences.

These findings also suggest that one issue for Black and Hispanic students, compared to White students, is persistence through high school and postsecondary education. As discussed above, Whites were more likely than Hispanics to graduate from high school by 2000, and among those who graduated from high school and enrolled in postsecondary education by 2000, Whites were more likely than Blacks and Hispanics to obtain a postsecondary credential by 2000. In addition, Whites were more likely than Blacks and Hispanics to graduate from high school on time, and even among those who graduated on time and immediately enrolled in college, Whites were more likely than Blacks and Hispanics to obtain an on-time postsecondary credential.

Finally, flexibility within the education system increases the proportion of all racial/ethnic groups who meet these education milestones, and in some cases, seems to reduce differences in attainment. This attenuation of attainment differences reflects the fact that among those who met each milestone, Blacks and Hispanics often were more likely to meet the milestone via a nontraditional means than were Asians and Whites (figure 3).[7] Attainment differences could be further attenuated over a longer time frame, which would provide more opportunity for meeting the milestones via a nontraditional path.

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[7] This analysis examined each milestone independently of whether the student had reached previous milestones. No difference was detected in the percentages of Black and White students who completed high school via a nontraditional means, possibly due to a relatively high standard error for these Black students. In all other cases, Blacks and Hispanics were more likely than their Asian and White counterparts to reach these milestones via a nontraditional means.

Data source: The NCES National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000."

For technical information, see

Curtin, T.R., Ingels, S.J., Wu, S., and Heuer, R. (2002). *National Education Longitudinal Study of 1988: Base-Year to Fourth Follow-up Data File User's Manual* (NCES 2002-323).

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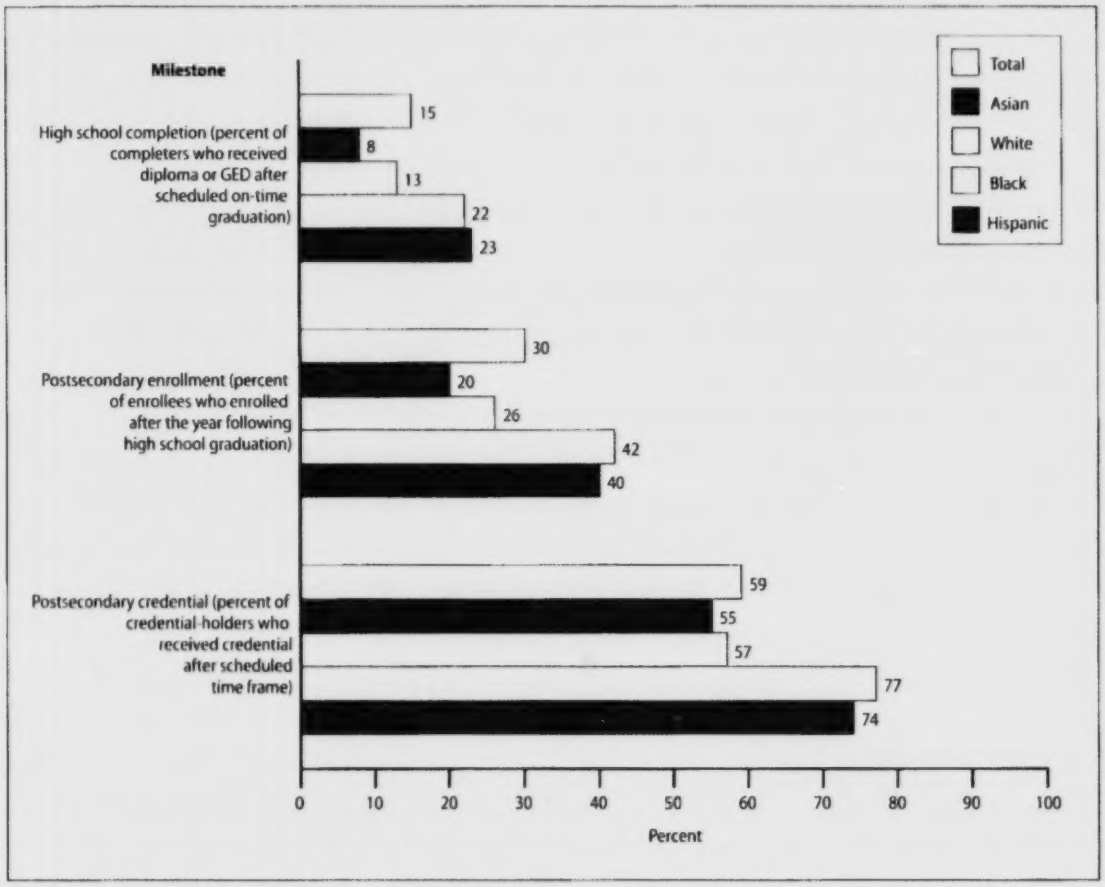
Figure 3. Percentage of 1988 eighth-graders reaching each milestone by 2000 who did so via nontraditional means, by student race/ethnicity



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000."

A Study of Higher Education Instructional Expenditures: The Delaware Study of Instructional Costs and Productivity

Michael F. Middaugh, Rosalinda Graham, and Abdus Shahid

This article was originally published as the Executive Summary of the Research and Development Report of the same name. The sample survey data are from the Delaware Study of Instructional Costs and Productivity.

Research and Development Reports are intended to

- share studies and research that are developmental in nature;
- share results of studies that are on the cutting edge of methodological developments; and
- participate in discussions of emerging issues of interest to researchers.

These reports present results or discussion that do not reach definitive conclusions at this point in time, either because the data are tentative, the methodology is new and developing, or the topic is one on which there are divergent views. Therefore, the techniques and inferences made from the data are tentative and are subject to revision.

A Study of Higher Education Instructional Expenditures is an examination of higher education costs undertaken by the National Center for Education Statistics (NCES). This study of higher education costs was mandated by Congress in the 1998 Higher Education Act. The NCES response to the congressional mandate encompassed three reports: *Study of College Costs and Prices, 1988–89 to 1997–98* (Cunningham et al. 2001); *What Students Pay for College: Changes in Net Price of College Attendance Between 1992–93 and 1999–2000* (Horn, Wei, and Berker 2002); and this third and final report.

The first report in the congressionally mandated study drew the distinction between *sticker price*, i.e., the tuition that an institution charges for a college education, and *cost*, i.e., the fiscal resources expended by the institution to provide that education. Additionally, researchers for the first part of the study found that certain factors are associated with tuition rates. Most notable at state-supported institutions is the importance of annual budget appropriations. At private not-for-profit institutions, internal budget constraints, size of endowments, and external market competition were among factors associated with sticker price. There was little evidence indicating that expenditures for instruction were a major factor in determining tuition rates.

This report focuses solely on the issue of direct instructional expenditures, and the factors associated with the comparative magnitude of those expenditures at 4-year colleges and universities in the United States. As evident in the findings and conclusions, the factors associated with instructional expenditures are different from those associated with sticker price, as identified in the first part of the congressionally mandated study. Cost and price are *not* interchangeable constructs, and a strong statistical relationship between them has not been found.

The data source for this analysis is multiple cycles of the Delaware Study of Instructional Costs and Productivity, henceforth called the Delaware Study. Begun in 1992 by the Office of Institutional Research and Planning at the University of Delaware, the study has grown into a national data-sharing consortium embracing over 300 4-year colleges and universities across the United States. The foci of data-sharing activities are detailed analyses of teaching loads by faculty category, instructional costs, and externally funded scholarly activity, all at the level of the academic discipline.

Goals and Limitations of This Study

The primary objective of this analysis of instructional expenditures is the identification of those factors that contribute to describing direct instructional costs in the colleges and universities that participate in the Delaware Study.

The study is characterized by the following factors:

- Participation in the Delaware Study is *voluntary*, and is restricted to 4-year Title IV–eligible institutions only. The fact that the data population used in this study is self-selected raises the issue of nonresponse bias. For example, institutions that participate in the Delaware Study typically have enrollments of at least 5,000 students and are organizationally complex, with discrete academic departments or programs that correspond with the four-digit codes assigned to disciplines within the NCES *Classification of Instructional Programs* (CIP) taxonomy (Morgan, Hunt, and Carpenter 1991). In contrast, single-purpose institu-

tions with smaller enrollments frequently have multiple disciplines grouped within a given organizational structure, e.g., Division of Social Sciences or Department of Education, and participate in much smaller numbers than their larger, more complex counterparts. In addition, because participation is restricted to 4-year institutions, findings cannot be extended to the 2-year college sector.

- Because the population for this study is self-selected, it is, by definition, not a random sample. Descriptive statistics are applied to data from responding institutions to describe instructional expenditures for those institutions, but the findings cannot be inferentially generalized to the larger population of all Title IV–eligible 4-year colleges and universities in the United States. However, this study's findings nonetheless yield valuable descriptive information about expenditures in those institutions that participate in the Delaware data-sharing process.
- The Delaware Study expenditure data reflect *direct* instructional expense, and therefore cannot be used for a full cost model. There are methodological pitfalls and inconsistencies in full cost modeling in higher education, especially with respect to allocating indirect costs (as described in the full report).

Within the context of these characteristics, this study yields information about factors that contribute to direct instructional costs at an institution, and these expenditures generally compose the largest portion of the operating budget at most colleges and universities.

Study Design and Methodology

This study utilized data from multiple data collection cycles of the Delaware Study, focusing primarily on data collected during 1998, 2000, and 2001. Data were collected using an established survey instrument that requests detailed information on fall semester teaching loads by faculty category, and academic and fiscal year student credit hour production and direct expenses for instruction, research, and service activity.

Direct instructional cost per student credit hour taught is the focal dependent variable examined in this study. Patterns of dispersion and difference in cost across disciplines are examined through a series of analytical lenses that are typically assumed to be major cost factors in the literature. These include institutional mission as characterized by Carnegie institutional classification. The Delaware Study employs the 1995 Carnegie taxonomy—research, doctoral, comprehensive, and baccalaureate institutions. The study also examines the impact of other variables such as highest degree offered within a discipline, and the relative emphasis on undergraduate versus graduate instruction within a discipline.

Using appropriate statistical tools, the relationship of cost to variables such as department size (measured in terms of number of faculty), proportion of faculty who are tenured, volume of student credit hours taught, and personnel expense as a percentage of total instructional costs is examined and measured. Effects of highest degree offered in the discipline, as well as Carnegie institutional classification, are also examined. Cost factors are determined by disciplines, or where more appropriate, groups of disciplines.

Findings

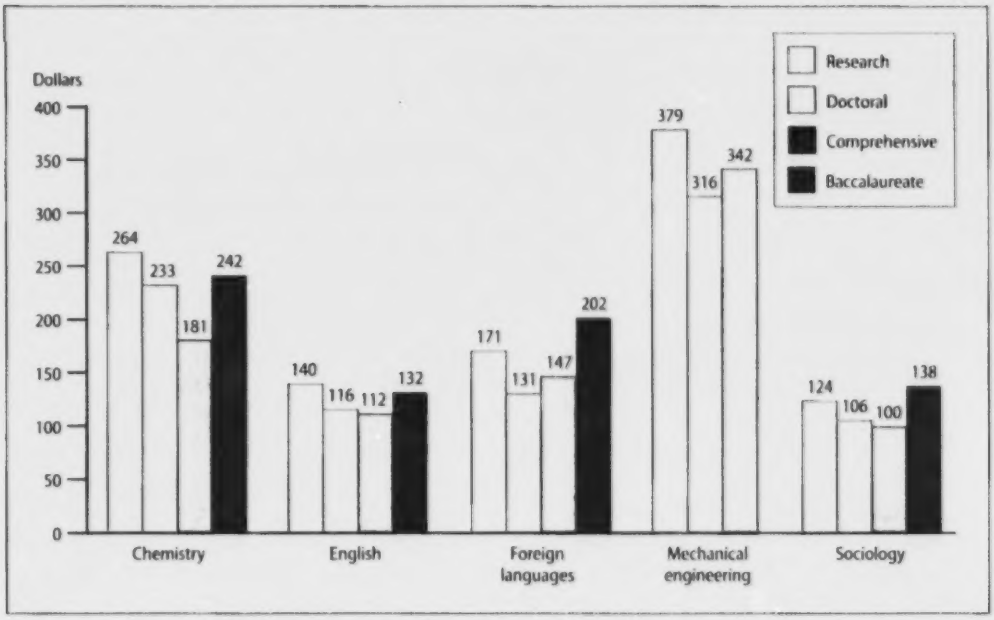
The key finding from analysis of multiple years of Delaware Study data is that most of the variance in instructional cost across institutions, as measured by direct expense per student credit hour taught, is associated with the disciplinary mix within an institution.

A secondary factor affecting cost is institutional mission, as related to Carnegie institutional classification. This result may be associated with different faculty responsibilities at institutions with different Carnegie classifications. For example, faculty at research universities, extensively engaged in research activity, might be expected to teach fewer student credit hours at higher costs than faculty at comprehensive institutions. However, Carnegie classification accounts for less of the cost differential between institutions than the disciplinary mix factor.

Figure A reflects actual academic year 2001 Delaware Study benchmarks for 5 of the 24 disciplines analyzed in this study. The benchmarks are mean values for direct expense per student credit hour taught, as reported by participating institutions. They have been refined to correct for outliers and influential cases, and as such, are fair reflections of the average cost of instruction in those disciplines.

In chemistry, average direct expense per student credit hour taught ranges from $181 at comprehensive institutions to $264 at research universities, an $83 spread. The range in English is $28, from a low of $112 at comprehensive institutions to a high of $140 at research universities. Foreign languages range from $131 at doctoral universities

Figure A. Direct expense per student credit hour taught: Institution type within discipline, 2001



NOTE: Data for mechanical engineering at baccalaureate institutions are not applicable.

SOURCE: University of Delaware, The Delaware Study of Instructional Costs and Productivity, 1998–2001.

to $202 at baccalaureate colleges, a $71 spread, while mechanical engineering ranges from $316 at doctoral universities to $379 at research universities, a difference of $63. And sociology ranges from $100 at comprehensive institutions to $138 at baccalaureate colleges, a spread of $38. These examples in figure A are typical of the ranges in any given Delaware Study data collection cycle.

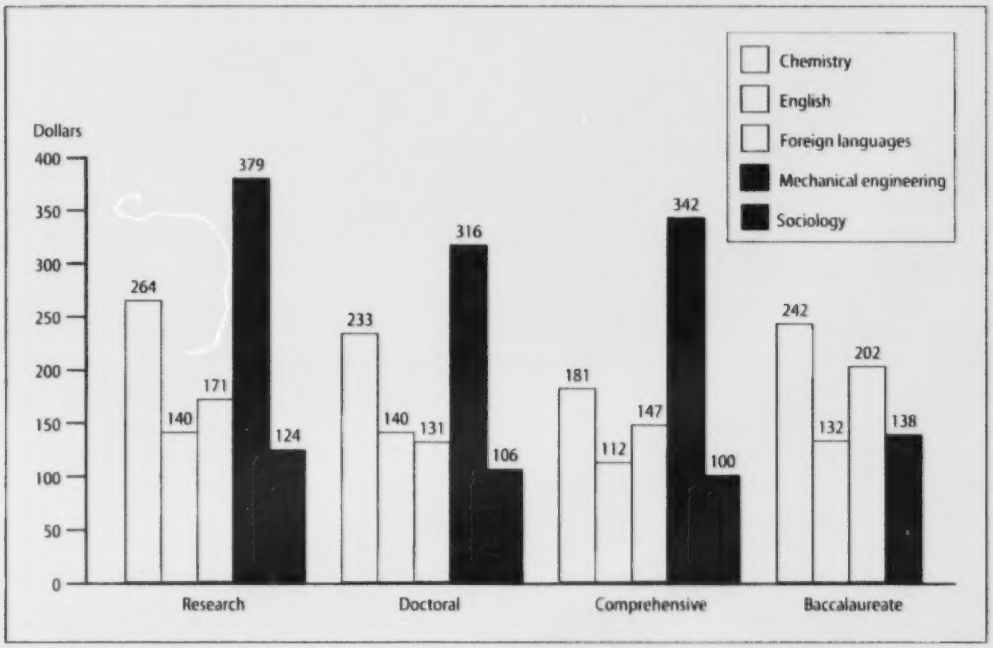
While the foregoing discussion demonstrates that there is variation within a discipline *across institution types*, figure B clearly illustrates there is also considerable variation *across the disciplines within an institution*. Using the same disciplinary examples, at a research university, the difference in direct expense per student credit hour taught between English and mechanical engineering is $239; the difference between sociology and chemistry is $140. Comparable patterns are apparent within the other Carnegie categories as well.

These cost differentials within disciplines across institution types and between disciplines within those types lead to an overarching question. In describing the cost of instruction at higher education institutions, which is the more important factor—the designation of the institution as research, doctoral, comprehensive, or baccalaureate, or the configuration of disciplines that compose the institution?

Hierarchical linear modeling (HLM) is a statistical tool that provides the capability to disaggregate total variance in cost by institution, and by discipline within the institution. HLM helps to explore and describe the dispersion of instructional costs across institutions, and to identify those factors that are associated with the dispersion. The hierarchical linear model constructed in this study demonstrates that most of the variance in cost is at the discipline level within an institution, ranging from 76.0 percent in the 1998 data collection cycle to 82.6 percent in the 2000 cycle.

It can be asserted that Carnegie institutional classification, as a proxy for institutional mission, is tied to at least some of the dispersion of costs at the aggregate institutional level. When Carnegie classification is taken into account in the hierarchical linear model, the dispersion in cost across institutions decreases, and the relative variance due to disciplines within an institution ranges from 81.0 to 88.0 percent.

Figure B. Direct expense per credit hour taught: Discipline within institution type, 2001



NOTE: Data for mechanical engineering at baccalaureate institutions are not applicable.

SOURCE: University of Delaware, The Delaware Study of Instructional Costs and Productivity, 1998–2001.

This important finding underscores that the disciplines that compose a college or university's curriculum, not its Carnegie designation, are associated with most of the dispersion of costs among institutions. This further highlights the distinction between costs, i.e., instructional expenditures, and price, i.e., tuition. Stated plainly, *price* is a constant for all undergraduates at an institution; chemistry and engineering majors pay the same tuition rate as English and sociology majors. However, the *cost* of delivering instruction in those disciplines varies widely.

Finding that most of the variation in instructional expenditures is associated with the mix of disciplines within an institution is also important in light of the issues raised in the first part of the congressionally mandated study. Researchers found no apparent relationship between the level of instructional expenditures at an institution and the tuition rate charged by that institution. Results of this analysis of direct instructional expense underscore the difficulty in relating price to cost at the level of the academic discipline. While direct instructional expense per student credit hour taught in civil engineering is three times higher than that for sociology, it is not practical for an institution to charge engineering majors a tuition rate three times that charged to sociology majors.

Indeed, the first report in the cost study found that institutional tuition rates at public institutions are determined largely by state appropriation levels, while competitive market forces shape tuition at private institutions. Neither of these external factors has anything to do with what it costs to deliver instruction in a discipline. Price (i.e., tuition) and cost (i.e., institution expenditures) are not interchangeable constructs.

While the foregoing discussion described the forces that are associated with instructional cost *within an institution*, the study also focused on those factors that impact expenditures *within a discipline*. In *The Economics of American Universities* (Brinkman 1990), Paul Brinkman postulated that the behavior of marginal and average costs can be associated with four dimensions: size (i.e., quantity of activity or output), scope of services offered, level of instruction (for instructional costs), and discipline (for instructional costs).

The analyses in this study determined that 60 to 75 percent of the variation in cost *within a discipline or groups of disciplines* is associated with specific cost factors consistent with those identified by Brinkman. While the association of a given variable with cost, as measured by direct expense

per student credit hour taught, may vary from discipline to discipline, the following general patterns are consistently observed:

- The volume of teaching activity, as measured by total student credit hours taught, is a major cost factor. Cost decreases as volume increases.
- Department size, as measured in terms of total number of faculty, is a consistent cost indicator. The larger the department, the higher the cost.
- The proportion of faculty holding tenure is a cost factor. The higher the proportion of tenured faculty, the higher the cost.
- The presence of graduate instruction in a discipline increases costs, although the measured effect of this variable on direct expense in this study is smaller than teaching volume, department size, and faculty tenure rate.
- Similarly, the extent to which expense is associated with personnel costs, as opposed to equipment costs, has less impact on total direct instructional expenditures within a discipline than do teaching volume, department size, and tenure rate.

Conclusions

While the first report in the congressionally mandated study of expenditures in higher education provided evidence that the price that students pay for an education is largely associated with factors external to the institution, the analyses in this report suggest that the direct cost of providing that education is more associated with internal institutional decisions and priorities.

The mix of disciplines that compose an institution's overall curriculum is associated with direct instructional expense at that institution and, to a smaller extent, its designation as a research, doctoral, comprehensive, or baccalaureate institution. Costs vary more substantially across disciplines within a given institution than they do across institutions within a given discipline.

Within the individual disciplines at an institution, economies of scale have the greatest impact on instructional costs. When given a faculty of fixed size, the more student credit hours taught, the lower the unit cost. Increasing the size of that faculty without a concomitant increase in student credit hour production raises instructional expense. Increasing the proportion of tenured faculty—that cadre of faculty who are better compensated and are essentially a "fixed cost"—will increase instructional expense. And to a lesser extent, introducing or increasing the level of graduate instruction raises instructional costs.

While the data analyzed in this study reflect cost patterns for those 4-year colleges and universities participating in the Delaware Study of Instructional Costs and Productivity only, they nonetheless provide a clear and measurable understanding of cost behaviors within those institutions. These are fresh data, collected at the academic discipline level of analysis, and lend themselves to descriptive statistics that illuminate and clarify cost patterns within those institutions that elect to belong to this data-sharing consortium.

A college or university's tuition rate is tied to what competing institutions charge, i.e., marketplace conditions, and what state legislatures provide as an operating subsidy. Instructional expenditures are tied more to fixed-cost factors, i.e., the mix of disciplines in place at the institution, and within those disciplines, student credit hour production, department size, and tenure rate. This study suggests that depending upon their magnitude, these variables constitute a baseline level for instructional costs within a discipline, and these costs vary less by discipline across institutions than they do among disciplines within an institution.

Most higher education institutions have multiple revenue streams, tuition being but one, to cover instructional costs. It is evident from this study that the factors that are associated with instructional costs are very different from the factors that are associated with tuition prices.

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Data source: University of Delaware, The Delaware Study of Instructional Costs and Productivity, 1998–2001.

For technical information, see the complete report:

Middaugh, M.F., Graham, R., and Shahid, A. (2003). *A Study of Higher Education Instructional Expenditures: The Delaware Study of Instructional Costs and Productivity* (NCES 2003–161).

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Postsecondary Institutions in the United States: Fall 2001 and Degrees and Other Awards Conferred: 2000–01

Laura G. Knapp, Janice E. Kelly, Roy W. Whitmore, Shiying Wu, and Lorraine M. Gallego

This article was originally published as the Summary of the E.D. Tabs report of the same name. The universe data are from the Integrated Postsecondary Education Data System (IPEDS).

Introduction

This report presents findings from the Integrated Postsecondary Education Data System (IPEDS) fall 2001 data collection, which included institutional characteristics data for the 2001–02 academic year and completions data covering the period July 1, 2000, through June 30, 2001. These data were collected through the IPEDS web-based data collection system.

IPEDS collects data from postsecondary institutions in the United States (the 50 states and the District of Columbia) and its outlying areas.[1] For IPEDS, a postsecondary institution is defined as an organization that is open to the public and has as its primary mission the provision of postsecondary education. IPEDS defines postsecondary education as formal instructional programs with a curriculum designed primarily for students who are beyond the compulsory age for high school. This includes academic, vocational, and continuing professional education programs and excludes institutions that offer only avocational (leisure) and adult basic education programs.

Participation in IPEDS was a requirement for the 6,458 institutions in the United States and the 157 in the outlying areas that participated in Title IV federal student financial aid programs such as Pell Grants or Stafford Loans during the 2001–02 academic year.[2] In addition, institutions that do not participate in Title IV programs are offered the opportunity to participate in the IPEDS data collection.

Tabulations in this report present selected data items collected from the 6,615 Title IV institutions in fall 2001. Additional detailed information is available through the various IPEDS web tools.[3] Institutions provided institutional characteristics and price data for the 2001–02 academic year and completions data (degrees and other formal awards conferred) during the 2000–01 academic year. This report presents data for all Title IV institutions.

Institutional Characteristics

NCES and other researchers use data from the Institutional Characteristics component of IPEDS to classify postsecondary institutions based on a variety of characteristics. Data on sector, level, control, and affiliation allow classification within general categories. More specific categories of institutions can be defined by using additional data, such as types of programs offered, levels of degrees and awards, accreditation, calendar system, admission requirements, student charges, and basic enrollment information.

Institutions were classified as degree-granting if they awarded at least one associate's or higher degree in academic year 2000–01. Of the 6,458 Title IV institutions in the United States, 4,197 institutions, or 65 percent of all U.S. Title IV institutions, granted a degree during this period (table A).

Institutions may be further classified by their control and level. Among the Title IV degree-granting institutions located in the United States, 59 percent offered a bachelor's or higher degree, while 41 percent offered an associate's as the highest degree (figure 1). Considering Title IV institutions in the United States that award certificates only (non-degree-granting), 76 percent offered certificates for completing programs of less than 2 years' duration, another 22 percent offered certificates requiring at least 2 but less than 4 years of study, and 1 percent offered certificates at the postbaccalaureate level or higher.

Further examination of the Title IV degree-granting institutions located in the United States indicates that 41 percent were public institutions, 40 percent were private not-for-profit institutions, and 19 percent were private for-profit institutions. Of the non-degree-granting Title IV institutions located in the United States, 17 percent were public institutions, 12 percent were private not-for-profit institutions, and 71 percent were private for-profit institutions.

[1] Outlying areas include American Samoa, the Federated States of Micronesia, Guam, the Marshall Islands, the Northern Marianas, Palau, Puerto Rico, and the Virgin Islands.

[2] Institutions participating in Title IV programs are accredited by an agency or organization recognized by the U.S. Department of Education, have a program of over 300 clock hours or 8 credit hours, have been in business for at least 2 years, and have a signed Program Participation Agreement (PPA) with the Office of Postsecondary Education (OPE), U.S. Department of Education.

[3] See http://nces.ed.gov/ipeds.

Table A. Title IV institutions, by geographic area, control of institution, degree-granting status, and level of institution: United States and outlying areas, academic year 2001–02

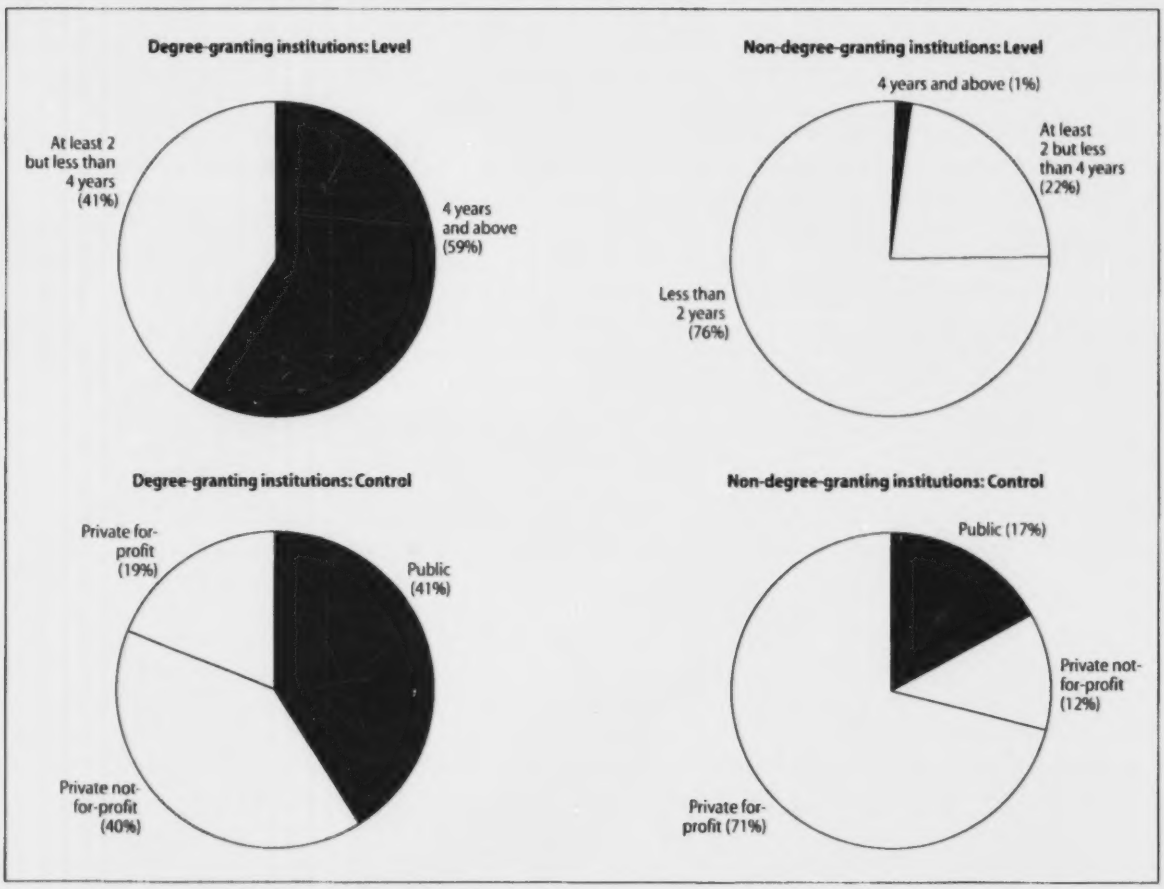
Degree-granting status and level of institution	United States					Outlying areas			
				Private				Private	
	Total	Total	Public	Not-for-profit	For-profit	Total	Public	Not-for-profit	For-profit
All institutions	6,615	6,458	2,099	1,941	2,418	157	30	49	78
4 years and above	2,578	2,520	629	1,567	324	58	17	35	6
At least 2 but less than 4 years	2,240	2,213	1,165	269	779	27	13	2	12
Less than 2 years	1,797	1,725	305	105	1,315	72	0	12	60
Degree-granting	4,279	4,197	1,713	1,676	808	82	30	37	15
4 years and above	2,545	2,487	628	1,541	318	58	17	35	6
At least 2 but less than 4 years	1,734	1,710	1,085	135	490	24	13	2	9
Less than 2 years	†	†	†	†	†	†	†	†	†
Non-degree-granting	2,336	2,261	386	265	1,610	75	0	12	63
4 years and above	33	33	1	26	6	0	0	0	0
At least 2 but less than 4 years	506	503	80	134	289	3	0	0	3
Less than 2 years	1,797	1,725	305	105	1,315	72	0	12	60

†Not applicable.

NOTE: Data are not imputed. The item response rates for all cells on this table are 100 percent. Outlying areas include American Samoa, the Federated States of Micronesia, Guam, the Marshall Islands, the Northern Marianas, Palau, Puerto Rico, and the Virgin Islands.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001.

Figure 1. Title IV institutions, by degree-granting status and level and control of institution: United States, academic year 2001–02


Degree-granting institutions: Level
At least 2 but less than 4 years (41%)
4 years and above (59%)
Non-degree-granting institutions: Level
4 years and above (1%)
At least 2 but less than 4 years (22%)
Less than 2 years (76%)
Degree-granting institutions: Control
Private for-profit (19%)
Public (41%)
Private not-for-profit (40%)
Non-degree-granting institutions: Control
Public (17%)
Private not-for-profit (12%)
Private for-profit (71%)

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001.

Completions

During the 2000–01 academic year, about 2.4 million degrees were awarded by Title IV degree-granting institutions located in the United States. Of the total number of degrees awarded, 24 percent were associate's degrees, 51 percent were bachelor's degrees, 19 percent were master's degrees, 2 percent were doctor's degrees, and 3 percent were first-professional degrees[4] (table B).

Control of institutions

Public institutions awarded two-thirds (65 percent) of all degrees from Title IV degree-granting institutions in the United States during the 2000–01 academic year, while private not-for-profit institutions awarded 30 percent and private for-profit institutions accounted for the remaining 5 percent (table C). Public and private not-for-profit institutions awarded more bachelor's degrees than any other type of degree. Bachelor's degrees accounted for 52 percent of all degrees awarded by public institutions and 56 percent of all degrees awarded by private not-for-profit institutions during 2000–01 (table B). Private for-profit institutions, on the other hand, were more likely to award associate's degrees. Associate's degrees accounted for 68 percent of the degrees awarded by private for-profit institutions during the 2000–01 academic year.

Public institutions awarded the majority of degrees at all levels, except at the first-professional level. They awarded 79 percent of associate's degrees, 65 percent of bachelor's degrees, 53 percent of master's degrees, and 63 percent of doctor's degrees (table C). The majority of first-professional degrees (59 percent) were awarded by private not-for-profit institutions, while public institutions awarded 41 percent of the degrees at this level.

Gender and race/ethnicity of recipients

Women earned more degrees than men in academic year 2000–01 (table C). Overall, about 58 percent of all degrees were awarded to women. Women earned more associate's, bachelor's, and master's degrees than men in 2000–01. They received 60 percent of the associate's degrees, 57 percent of

[4]First-professional degrees are awarded after completion of the academic requirements to begin practice in the following professions: chiropractic (D.C. or D.C.M.); dentistry (D.D.S. or D.M.D.); law (L.L.B. or J.D.); medicine (M.D.); optometry (O.D.); osteopathic medicine (D.O.); pharmacy (Pharm.D.); podiatry (D.P.M., D.P., or Pod.D.); theology (M.Div., M.H.L., B.D., or Ordination); or veterinary medicine (D.V.M.).

Table B. Number and percentage of degrees conferred by Title IV degree-granting institutions, by control of institution and level of degree: United States, academic year 2000–01

Level of degree	Total	Public	Private not-for-profit	Private for-profit
Total, all degrees	2,416,123	1,575,799	727,949	112,375
Percent of total	100.0	100.0	100.0	100.0
Associate's degrees	578,865	456,487	45,711	76,667
Percent of total	24.0	29.0	6.3	68.2
Bachelor's degrees	1,244,171	812,438	408,701	23,032
Percent of total	51.5	51.6	56.1	20.5
Master's degrees	468,476	246,054	210,789	11,633
Percent of total	19.4	15.6	29.0	10.4
Doctor's degrees	44,904	28,187	15,920	797
Percent of total	1.9	1.8	2.2	0.7
First-professional degrees[1]	79,707	32,633	46,828	246
Percent of total	3.3	2.1	6.4	0.2

[1]First-professional degrees are awarded after completion of the academic requirements to begin practice in the following professions: chiropractic (D.C. or D.C.M.); dentistry (D.D.S. or D.M.D.); law (L.L.B. or J.D.); medicine (M.D.); optometry (O.D.); osteopathic medicine (D.O.); pharmacy (Pharm.D.); podiatry (D.P.M., D.P., or Pod.D.); theology (M.Div., M.H.L., B.D., or Ordination); or veterinary medicine (D.V.M.).

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001.

Table C. Degrees conferred by Title IV institutions, by level of degree, control of institution, gender, and race/ethnicity: United States, academic year 2000–01

Control of institution, gender, and race/ethnicity	Total degrees		Associate's degrees		Bachelor's degrees	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
All institutions	2,416,123	100.0	578,865	100.0	1,244,171	100.0
Control of institution						
Public	1,575,799	65.2	456,487	78.9	812,438	65.3
Private not-for-profit	727,949	30.1	45,711	7.9	408,701	32.8
Private for-profit	112,375	4.7	76,667	13.2	23,032	1.9
Gender						
Men	1,025,426	42.4	231,645	40.0	531,840	42.7
Women	1,390,697	57.6	347,220	60.0	712,331	57.3
Race/ethnicity						
White, non-Hispanic	1,664,805	68.9	396,403	68.5	890,077	71.5
Black, non-Hispanic	211,044	8.7	61,600	10.6	106,775	8.6
Hispanic	154,687	6.4	55,230	9.5	74,493	6.0
Asian/Pacific Islander	136,700	5.7	27,418	4.7	75,595	6.1
American Indian/Alaska Native	18,062	0.7	6,392	1.1	8,683	0.7
Race/ethnicity unknown	104,983	4.3	20,261	3.5	48,737	3.9
Nonresident alien	125,842	5.2	11,561	2.0	39,811	3.2

Control of institution, gender, and race/ethnicity	Master's degrees		Doctor's degrees		First-professional degrees[1]	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
All institutions	468,476	100.0	44,904	100.0	79,707	100.0
Control of institution						
Public	246,054	52.5	28,187	62.8	32,633	40.9
Private not-for-profit	210,789	45.0	15,920	35.5	46,828	58.8
Private for-profit	11,633	2.5	797	1.8	246	0.3
Gender						
Men	194,351	41.5	24,728	55.1	42,862	53.8
Women	274,125	58.5	20,176	44.9	36,845	46.2
Race/ethnicity						
White, non-Hispanic	296,108	63.2	25,865	57.6	56,352	70.7
Black, non-Hispanic	35,364	7.5	2,091	4.7	5,214	6.5
Hispanic	19,879	4.2	1,430	3.2	3,655	4.6
Asian/Pacific Islander	22,272	4.8	2,440	5.4	8,975	11.3
American Indian/Alaska Native	2,293	0.5	170	0.4	524	0.7
Race/ethnicity unknown	31,136	6.6	1,945	4.3	2,904	3.6
Nonresident alien	61,424	13.1	10,963	24.4	2,083	2.6

[1]First-professional degrees are awarded after completion of the academic requirements to begin practice in the following professions: chiropractic (D.C. or D.C.M.); dentistry (D.D.S. or D.M.D.); law (L.L.B. or J.D.); medicine (M.D.); optometry (O.D.); osteopathic medicine (D.O.); pharmacy (Pharm.D.); podiatry (D.P.M., D.P., or Pod.D.); theology (M.Div., M.H.L., B.D., or Ordination); or veterinary medicine (D.V.M.).

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001.

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the bachelor's degrees, and 59 percent of the master's degrees. On the other hand, men earned more doctor's and first-professional degrees, 55 percent and 54 percent, respectively.

Over two-thirds (69 percent) of all degrees conferred during the 2000–01 academic year were awarded to White, non-Hispanic students; 22 percent were awarded to minority students; and 10 percent were awarded to nonresident aliens (5.2 percent) or individuals whose race/ethnicity was unknown (4.3 percent). The majority of degrees at each level were awarded to White, non-Hispanic students: 68 percent of associate's degrees, 72 percent of bachelor's degrees, 63 percent of master's degrees, 58 percent of doctor's degrees, and 71 percent of first-professional degrees.

The proportion of degrees awarded to minority students was highest at the associate's level, where they received 26 percent of these degrees. Minorities were also awarded 21 percent of bachelor's degrees, 17 percent of master's degrees, 14 percent of doctor's degrees, and 23 percent of first-professional degrees.

Although the proportion of degrees awarded to nonresident aliens varied by level, they received 13 percent of all master's degrees and 24 percent of all doctor's degrees, much higher proportions than any individual or specific group other than White, non-Hispanic.

Tuition and Fees

The overall increase in tuition and fees charged by institutions between 1996–97 and 2001–02 varied by student level and state residency status (table D). Note that these are average institutional charges; the numbers do not reflect average amounts paid by students because charges are *not* weighted by enrollment nor is financial aid taken into consideration.[5] Undergraduate tuition and required fees at public 4-year institutions rose 26 percent between 1996–97 and 2001–02 for in-state students and 25 percent for out-of-state students. Between 1996–97 and 2001–02, graduate tuition and required fees at public institutions rose 30 percent for in-state students and 27 percent for out-of-state students.

Among 4-year institutions, private for-profit institutions reported the largest increases in tuition and required fees. At 4-year private not-for-profit institutions, tuition and fees charged to both undergraduates and graduates rose during this period (37 percent and 31 percent, respectively).

Increases at public 2-year institutions were lowest during the period; charges to in-state students increased 18 percent, while charges to those attending out-of-state rose 20 percent. Private not-for-profit 2-year institutions increased their tuition and required fees between 1996–97 and 2001–02 more than any other type of institution—61 percent, while tuition at 2-year private for-profit institutions increased 40 percent.

Price of Attendance

Price of attendance is an estimate of the total amount an incoming undergraduate student will be required to pay to attend college. This price includes tuition and fees, books and supplies, room and board, and certain designated other expenses such as transportation. IPEDS collects price of attendance information for full-time, first-time, degree/certificate-seeking students from Title IV institutions. These estimates are the amounts provided by the institutions' financial aid offices and are used to determine a student's financial need.

Considering differences in price of attendance for full-time, first-time, degree/certificate-seeking students (referred to here as "undergraduates") by institutional control, 4-year private not-for-profit institutions were more expensive than either private for-profit or public institutions of the same level (table E). The average price of attendance for undergraduates attending 4-year private not-for-profit institutions in 2001–02 was $20,667. This was higher than the price of $18,978 for these same students at 4-year private for-profit institutions. Public institutions reported the lowest prices among 4-year institutions, $10,559 for in-state undergraduates and $16,285 for out-of-state undergraduates, during the 2001–02 academic year.

Two-year public institutions offered the lowest price of attendance overall during this same period, $8,020 to in-state students and $10,615 to out-of-state students. For the 2001–02 academic year, students attending private institutions paid higher prices. At private for-profit 2-year institutions, first-time students could expect to pay $16,802 on average, while their counterparts at private not-for-profit institutions paid $14,966.

[5] See also Choy and Berker (2003).

Table D. Changes in average charges by institutions for tuition and required fees to full-time, full-year students at Title IV degree-granting institutions, by student level, residency, and year of tuition and required fees: United States, academic years 1996–97 and 2001–02

Student level, residency, and year of tuition and required fees	Tuition and required fees: 4-year and above institutions		
		Private	
	Public	Not-for-profit	For-profit
Undergraduate			
In-state			
1996–97	$2,947	†	†
2001–02	$3,705	†	†
Percent change	26	†	†
All other			
1996–97	$7,578	$9,985	$7,835
2001–02	$9,441	$13,631	$10,809
Percent change	25	37	38
Graduate			
In-state			
1996–97	$3,282	†	†
2001–02	$4,252	†	†
Percent change	30	†	†
All other			
1996–97	$7,567	$7,934	$8,320
2001–02	$9,596	$10,416	$12,097
Percent change	27	31	45

Student level, residency, and year of tuition and required fees	Tuition and required fees: At least 2-year but less than 4-year institutions		
		Private	
	Public	Not-for-profit	For-profit
Undergraduate			
In-state			
1996–97	$1,601	†	†
2001–02	$1,890	†	†
Percent change	18	†	†
All other			
1996–97	$3,722	$5,032	$6,911
2001–02	$4,482	$8,095	$9,699
Percent change	20	61	40

†Not applicable.

NOTE: Tuition data are not imputed. The item response rates for all cells on this table range from 86.0 percent to 100.0 percent. For public institutions, "all other" reflects out-of-state tuition and fees. Tuition and required fees are average institutional charges, not average amounts paid by students (i.e., charges are not weighted by enrollment).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 1996 and Fall 2001.

Table E. Average price of attendance for full-time, first-time, degree/certificate-seeking students at Title IV degree-granting institutions, by control of institution, residency, and level of institution: United States, academic year 2001–02

Control of institution, residency, and level of institution	On-campus price	Off-campus (not with family) price	Off-campus (with family) price
Public institutions			
In-state			
4 years and above	$11,721	$12,734	$7,222
At least 2 but less than 4 years	8,098	10,496	5,466
Out-of-state			
4 years and above	17,447	18,459	12,948
At least 2 but less than 4 years	10,693	13,091	8,060
Private not-for-profit institutions			
4 years and above	21,970	22,787	17,245
At least 2 but less than 4 years	15,406	17,780	11,711
Private for-profit institutions			
4 years and above	20,889	20,703	15,341
At least 2 but less than 4 years	17,716	18,788	13,901

NOTE: Price data are not imputed. The item response rates for all cells on this table range from 86.6 percent to 100.0 percent. Price of attendance includes tuition and fees, room and board charges, books and supplies, and other expenses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2001.

Reference

Choy, S.P., and Berker, A.M. (2003). *How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999–2000* (NCES 2003–162). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data source: The NCES Integrated Postsecondary Education Data System (IPEDS), Fall 1996 and Fall 2001.

For technical information, see the complete report:

Knapp, L.G., Kelly, J.E., Whitmore, R.W., Wu, S., and Gallego, L.M. (2003). *Postsecondary Institutions in the United States: Fall 2001 and Degrees and Other Awards Conferred: 2000–01* (NCES 2003–158).

Author affiliations: L.G. Knapp, consultant; J.E. Kelly, R.W. Whitmore, S. Wu, and L.M. Gallego, RTI International.

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To obtain the complete report (NCES 2003–158), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Public Libraries in the United States: Fiscal Year 2001
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Public Libraries in the United States: Fiscal Year 2001

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This article was originally published as the Introduction and Highlights of the E.D. Tabs report of the same name. The universe data are from the Public Libraries Survey (PLS).

Introduction

The tables in this report summarize information about public libraries in the 50 states and the District of Columbia for state fiscal year (FY) 2001. Forty-nine states, the District of Columbia, and two outlying areas (Guam and the U.S. Virgin Islands) submitted data for FY 2001.[1] Data from Guam and the U.S. Virgin Islands are included in the tables, but not in the table totals. Minnesota did not respond to the survey—all of its data are imputed. The data were collected through the Public Libraries Survey (PLS), conducted annually by the National Center for Education Statistics (NCES) through the Federal-State Cooperative System (FSCS) for Public Library Data. The FY 2001 survey is the 14th in the series.[2] This report is based on the final data file.

This report includes information about service measures such as access to the Internet and other electronic services, number of Internet terminals used by staff only, number of Internet terminals used by the general public, reference transactions, public service hours, interlibrary loans, circulation, library visits, children's program attendance, and circulation of children's materials. It also includes information about size of collection, staffing, operating income and expenditures, type of geographic service area,

[1]Data were not reported by the following outlying areas: American Samoa, the Northern Marianas, Palau, and Puerto Rico.

[2]Trend data from some of the earlier surveys are discussed in *Public Library Trends Analysis: Fiscal Years 1992–1998* (Glover 2001), a Statistical Analysis Report released by NCES in the summer of 2001.

type of legal basis, type of administrative structure, and number and type of public library service outlets.[3] Data were imputed for nonresponding libraries.

Number of Public Libraries and Population of Legal Service Area

- There were 9,129[4] public libraries (administrative entities) in the 50 states and the District of Columbia in FY 2001.
- Public libraries served 97 percent[5] of the total population of the states and the District of Columbia, either in legally established geographic service areas or in areas under contract.
- Eleven percent of the public libraries served 72 percent of the population of legally served areas in the United States; each of these public libraries had a legal service area population of 50,000 or more.

Service Outlets

- In FY 2001, 81 percent of public libraries had one single direct service outlet (an outlet that provides service directly to the public). Nineteen percent had more than one direct service outlet. Types of direct service outlets include central library outlets, branch library outlets, and bookmobile outlets.
- A total of 1,528 public libraries (17 percent) had one or more branch library outlets, with a total of 7,450 branch outlets. The total number of central library outlets was 8,971. The total number of stationary outlets (central library outlets and branch library outlets) was 16,421. Eight percent of public libraries had one or more bookmobile outlets, with a total of 879 bookmobiles.

Legal Basis and Interlibrary Relationships

- In FY 2001, 55 percent of public libraries were part of a municipal government, 11 percent were part of a county/parish, 15 percent were nonprofit association libraries or agency libraries, 9 percent were separate government units known as library districts, 5 percent had multijurisdictional legal basis under an intergovernmental agreement, 3 percent were part of a school district, 1 percent were part of a city/county, and 2 percent reported their legal basis as "other."
- Seventy-six percent of public libraries were members of a system, federation, or cooperative service, while 23 percent were not. Two percent served as the headquarters of a system, federation, or cooperative service.[6]

Collections

- Nationwide, public libraries had 767.1 million books and serial volumes in their collections, or 2.8 volumes per capita, in FY 2001. By state, the number of volumes per capita ranged from 1.7 to 5.0.
- Public libraries nationwide had 34.3 million audio materials and 25.2 million video materials in their collections.
- Nationwide, public libraries provided 8.5 materials in electronic format per 1,000 population (e.g., CD-ROMs, magnetic tapes, and magnetic disks).

Library Services

Children's services

- Nationwide, circulation of children's materials was 653.9 million, or 37 percent of total circulation, in FY 2001. Attendance at children's programs was 51.8 million.

Internet access and electronic services

- Nationwide, 96 percent of public libraries had access to the Internet. Ninety-one percent of all public libraries made the Internet available to patrons directly or through a staff intermediary, 4 percent of public libraries made the Internet available to patrons through a staff intermediary only, and 1 percent of public libraries made the Internet available only to library staff.
- Internet terminals available for public use in public libraries nationwide numbered 123,000, or 2.2 per 5,000 population. The average number of Internet terminals available for public use per stationary outlet was 7.5.[7]

[3] See the glossary in the full report for definitions of the terms used in the report.

[4] Of the 9,129 public libraries, 7,352 were single-outlet libraries, 1,776 were multiple-outlet libraries, and 1 had zero public-service outlets (provided books-by-mail-only service).

[5] This percentage was derived by dividing the total unduplicated population of legal service areas for the 50 states and the District of Columbia by the sum of their official state total population estimates. (Also see *Data File, Public Use: Public Libraries Survey: Fiscal Year 2001* [NCES 2003–398] on the NCES web site.)

[6] Libraries that identify themselves as the headquarters of a system, federation, or cooperative service are not included in the count of members of a system, federation, or cooperative service.

[7] The average was calculated by dividing the total number of Internet terminals available for public use in central and branch outlets by the total number of such outlets.

- Ninety-nine percent[8] of the unduplicated population of legal service areas had access to the Internet through their local public library.
- Nationwide, 90 percent of public libraries provided access to electronic services.[9]

Other services

- Total nationwide circulation of public library materials was 1.8 billion, or 6.5 materials circulated per capita. By state, the highest circulation per capita was 13.8, and the lowest was 2.1.
- Nationwide, 19.5 million library materials were loaned by public libraries to other libraries.
- Nationwide, reference transactions in public libraries totaled 296.2 million, or 1.1 reference transactions per capita.
- Nationwide, library visits in public libraries totaled 1.2 billion, or 4.3 library visits per capita.

Staff

- Public libraries had a total of 133,000 paid full-time-equivalent (FTE) staff in FY 2001, or 12.18 paid FTE staff per 25,000 population. Of the total FTE staff, 23 percent, or 2.75 per 25,000 population, had master's degrees from programs of library and information studies accredited by the American Library Association ("ALA-MLS" degrees); 11 percent were librarians by title but did not have the ALA-MLS degree; and 67 percent were in other positions.
- Forty-five percent of all public libraries, or 4,072 libraries, had librarians with ALA-MLS degrees.

Operating Income and Expenditures

Operating income

- In FY 2001, 77 percent of public libraries' total operating income of about $8.2 billion came from local sources, 13 percent from state sources, 1 percent from federal sources, and 9 percent from other sources, such as monetary gifts and donations, interest, library fines, and fees.
- Nationwide, the average total per capita[10] operating income for public libraries was $30.02. Of that, $23.20 was from local sources, $3.82 from state sources, $.17 from federal sources, and $2.82 from other sources.
- Per capita operating income from local sources was under $3.00 for 9 percent of public libraries, $3.00 to $14.99 for 36 percent of libraries, $15.00 to $29.99 for 33 percent of libraries, and $30.00 or more for 22 percent of libraries.

Operating expenditures

- Total operating expenditures for public libraries were $7.6 billion in FY 2001. Of this, 64 percent was expended for paid staff and 15 percent for the library collection.
- Thirty-one percent of public libraries had operating expenditures of less than $50,000, 41 percent expended $50,000 to $399,999, and 28 percent expended $400,000 or more.
- Nationwide, the average per capita operating expenditure for public libraries was $27.64. By state, the highest average per capita operating expenditure was $51.58, and the lowest was $12.28.
- Expenditures for library collection materials in electronic format were 1 percent of total operating expenditures for public libraries. Expenditures for electronic access were 3 percent of total operating expenditures.

Reference

Glover, D. (2001). *Public Library Trends Analysis: Fiscal Years 1992–1996* (NCES 2001–324). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data source: The NCES Public Libraries Survey (PLS), fiscal year 2001.

For technical information, see the complete report:

Chute, A., Kroe, P.E., O'Shea, P., Polcari, M., and Ramsey, C.J. (2003). *Public Libraries in the United States: Fiscal Year 2001* (NCES 2003–399).

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To obtain the complete report (NCES 2003–399), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

[8]This percentage was derived by summing the unduplicated population of legal service areas for (1) all public libraries in which the Internet was used by patrons through a staff intermediary only and (2) all public libraries in which the Internet was used by patrons either directly or through a staff intermediary, and then dividing the total by the unduplicated population of legal service areas in the United States. (Also see *Data File, Public Use: Public Libraries Survey: Fiscal Year 2001* [NCES 2003–398] on the NCES web site.)

[9]Access to electronic services refers to electronic services (e.g., bibliographic and full-text databases, multimedia products) provided by the library due to subscription, lease, license, consortial membership or agreement. It includes full-text serial subscriptions and electronic databases received by the library or an organization associated with the library.

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[10]Per capita figures are based on the total unduplicated population of legal service areas (which excludes populations of unserved areas) in the 50 states and the District of Columbia, not on the state total population estimates.

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International Comparisons in Fourth-Grade Reading Literacy: Findings From the Progress in International Reading Literacy Study (PIRLS) of 2001

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This article was excerpted from the Statistical Analysis Report of the same name. The sample survey data are primarily from the Progress in International Reading Literacy Study (PIRLS).

PIRLS 2001 in Brief

The Progress in International Reading Literacy Study of 2001 (PIRLS 2001) is an assessment of reading comprehension conducted by the International Association for the Evaluation of Educational Achievement (IEA). Thirty-five countries assessed the reading literacy of students in the upper of the two grades with the most 9-year-olds (fourth grade in most countries, including the United States). PIRLS 2001 provides comparative information on the reading literacy of these fourth-graders and also examines factors that may be associated with the acquisition of reading literacy in young children.

PIRLS 2001 will help educators and policymakers by answering questions such as the following:

- How well do fourth-grade students read?
- How do students in one country compare with students in another country?
- Do fourth-grade students value and enjoy reading?
- Internationally, how do the reading habits and attitudes of students vary?

As the sponsor for PIRLS 2001 in the United States, the National Center for Education Statistics (NCES) is reporting findings from the study that compare the United States with other countries and that take a closer look at performance within the United States. The full report on the international study is available at www.pirls.org. Also available at this site is the *PIRLS 2001 Technical Report* (Martin, Mullis, and Kennedy 2003), which examines specific technical issues related to the assessment. Supporting data for the tables and analyses in this report are available at www.nces.ed.gov/surveys/pirls.

Background

PIRLS 2001 follows by 10 years a prior IEA study of reading literacy called the IEA International Reading Literacy Study

of 1991. Over the 10 years between these studies, progress has been made in the ways in which students are assessed and in the construction of the assessment instruments themselves. There has also been a shift in the design of the assessments. Thus, while PIRLS 2001 can trace its evolution from the 1991 IEA study, it is nevertheless a different study.

PIRLS 2001 is the first in a planned 5-year cycle of international trend studies in reading literacy by the IEA. PIRLS is designed to assist participating countries in monitoring the reading literacy of their fourth-grade populations in comparison to other countries.

Construction and administration

A group of distinguished international reading scholars, the Reading Development Group, was formed to construct the *PIRLS 2001 Framework* (see Campbell et al. 2001) and endorse the final reading assessment. Each country followed internationally prescribed procedures to ensure valid translations and representative samples of students. Quality Control Monitors were then appointed in each country to monitor the testing sessions at the schools to ensure that the high standards of the PIRLS 2001 data collection process were met.

Reading literacy achievement was measured by using a selection of four literary passages drawn from children's storybooks and four informational texts. Submitted and reviewed by the PIRLS 2001 countries, the literary passages included realistic stories and traditional tales. The informational texts included chronological and nonchronological articles, a biographical article, and an informational leaflet.

Data collection

Data were collected in the final months of the 2000–01 school year. In the United States, data were collected in the spring of 2001 from both public and private schools.

Definition and aspects of reading literacy

PIRLS 2001 measures reading abilities at a time in students' schooling when most have learned how to read and are now using reading to learn.

PIRLS 2001 defines reading literacy as follows:

> The ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers, and for enjoyment (Campbell et al. 2001, p. 3).

In PIRLS 2001, three aspects of reading literacy are assessed: purposes of reading, processes of comprehension, and reading behavior and attitudes. The first two aspects of reading literacy form the basis of the written test of reading comprehension, while the student background questionnaire addresses the third aspect.

Purposes of reading refers to the two types of reading that account for most of the reading young students do, both in and out of school: (1) reading for literary experience, and (2) reading to acquire and use information. In the assessment, narrative fiction is used to assess students' ability to read for literary experience, while a variety of informational texts are used to assess students' ability to acquire and use information while reading. The PIRLS 2001 assessment contains an equal proportion of text assessing each purpose.

Processes of comprehension refers to ways in which readers construct meaning from the text. Readers (1) focus on and retrieve specific ideas, (2) make inferences, (3) interpret and integrate ideas and information, and (4) examine or evaluate text features. As shown in figure A, each process is assessed within each purpose of reading.

Average Scores of Students in the United States and Other Countries

PIRLS 2001 scores are reported on a scale of 0 to 1000, with an international average of 500 and a standard deviation of 100.[1] For the 35 countries that participated in PIRLS 2001, figure B presents the average scores for three scales: the combined reading literacy scale and its two components, the literary and informational subscales.[2] The average scores of U.S. students are compared to the average scores of students in other participating countries and the international average score.[3]

[1]The international average is the mean of all countries participating in the study calculated so that all participating countries have the same contribution to the average. The PIRLS 2001 scale average for each scale (the combined reading literacy scale and the literary and informational subscales) across countries was set to 500 and the standard deviation to 100.

[2]Average scores for each country are based on a sample of students, rather than all students, and are estimates of the population value of all 9-year-olds in each country. The combined literacy scale is based on the distribution of scores on all the test items, while the subscales are based on only the items that belong to each subscale. Hence, the combined reading literacy score is not the statistical average of the scores of the two subscales.

[3]No statistical adjustments (such as Bonferonni) are made while carrying out multiple comparisons between the United States and other countries. In order to be consistent with the comparisons carried out for the international report, the t-tests used in this report do not adjust for the correlation between the U.S. average and the international average.

Figure A. Percentage of PIRLS assessment items devoted to reading purposes and processes

Process of comprehension	Purpose of reading (percent)		
	Literary items	Informational items	Total
Total	49	50	100
Focus on and retrieve explicitly stated information	9	13	22
Make straightforward inferences	14	9	23
Interpret and integrate ideas and information	20	20	40
Examine and evaluate content, language, and textual elements	6	8	14

NOTE: Detail may not sum to totals due to rounding.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 2 on p. 3 of the complete report from which this article is excerpted.)

U.S. student performance on the combined reading literacy scale

- U.S. fourth-grade students perform significantly better than the international average of 500 on the combined reading literacy scale.
- U.S. fourth-graders outperform their counterparts in 23 of the 34 other countries participating in PIRLS 2001, although they score lower than students in England, the Netherlands, and Sweden. No detectable differences in scores are found between U.S. students and their counterparts in eight of the remaining PIRLS 2001 countries.

U.S. student performance on subscales

- U.S. fourth-grade students perform better than the international averages on both of the reading subscales.
- Sweden outscores the United States on the literary subscale, and five countries—Bulgaria, England, Latvia, the Netherlands, and Sweden—outperform the United States on the informational subscale.
- U.S. fourth-graders outscore students in 26 countries on the literary subscale and outperform their counterparts in 17 countries on the informational subscale.

Distribution of Average Combined Reading Literacy Scores

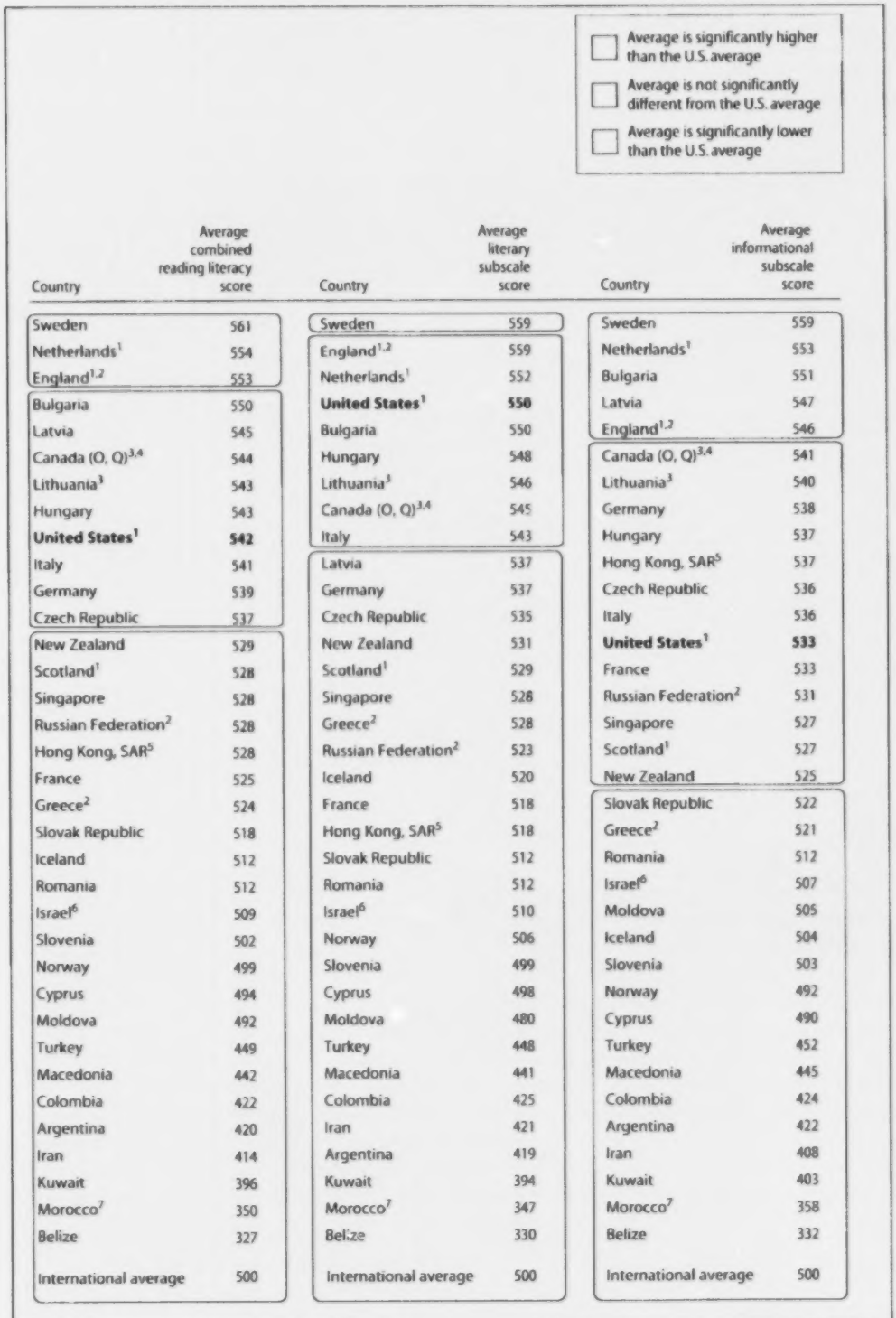
The average scores for reading literacy describe how a country performs overall compared to other nations, but they provide no information about the way scores are distributed within the countries. One country with an average score similar to another could have large numbers of high- and low-scoring students, while the other country could have large numbers of students performing at about the average score. Figure C details how scores are distributed across countries.

- In the United States, the 5th percentile score for combined reading literacy is 389. Ninety-five percent of U.S. students score above 389; in the same way, 5 percent of students score above 663, the 95th percentile score. This means that the top 5 percent of U.S. students score at least 274 points higher than the bottom 5 percent.

Looking at the length of the bars in figure C gives a sense of how large the differences are between a country's highest and lowest performing students, but it does not describe how many students are high or low performing. As with average scores, because of the statistical techniques used to sample students, it is not accurate to rank countries' scoring variation based simply on the length of the bars shown in figure C. Standard deviations of the combined reading literacy average scores give a mathematical way to tell how greatly scores are spread out from the country's average score.

- Seventeen countries, or about half of the countries participating in PIRLS 2001, show less variation in student performance than the United States. Ten countries show more variation, while the remaining eight countries show no detectable differences in variation in student performance compared to the United States.

Figure B. Fourth-graders' average scores for the combined reading literacy scale, literary subscale, and informational subscale, by country: 2001


Average is significantly higher than the U.S. average
Average is not significantly different from the U.S. average
Average is significantly lower than the U.S. average

Country	Average combined reading literacy score
Sweden	561
Netherlands[1]	554
England[1,2]	553
Bulgaria	550
Latvia	545
Canada (O, Q)[3,4]	544
Lithuania[3]	543
Hungary	543
United States[1]	**542**
Italy	541
Germany	539
Czech Republic	537
New Zealand	529
Scotland[1]	528
Singapore	528
Russian Federation[2]	528
Hong Kong, SAR[5]	528
France	525
Greece[2]	524
Slovak Republic	518
Iceland	512
Romania	512
Israel[6]	509
Slovenia	502
Norway	499
Cyprus	494
Moldova	492
Turkey	449
Macedonia	442
Colombia	422
Argentina	420
Iran	414
Kuwait	396
Morocco[7]	350
Belize	327
International average	500

Country	Average literary subscale score
Sweden	559
England[1,2]	559
Netherlands[1]	552
United States[1]	**550**
Bulgaria	550
Hungary	548
Lithuania[3]	546
Canada (O, Q)[3,4]	545
Italy	543
Latvia	537
Germany	537
Czech Republic	535
New Zealand	531
Scotland[1]	529
Singapore	528
Greece[2]	528
Russian Federation[2]	523
Iceland	520
France	518
Hong Kong, SAR[5]	518
Slovak Republic	512
Romania	512
Israel[6]	510
Norway	506
Slovenia	499
Cyprus	498
Moldova	480
Turkey	448
Macedonia	441
Colombia	425
Iran	421
Argentina	419
Kuwait	394
Morocco[7]	347
Belize	330
International average	500

Country	Average informational subscale score
Sweden	559
Netherlands[1]	553
Bulgaria	551
Latvia	547
England[1,2]	546
Canada (O, Q)[3,4]	541
Lithuania[3]	540
Germany	538
Hungary	537
Hong Kong, SAR[5]	537
Czech Republic	536
Italy	536
United States[1]	**533**
France	533
Russian Federation[2]	531
Singapore	527
Scotland[1]	527
New Zealand	525
Slovak Republic	522
Greece[2]	521
Romania	512
Israel[6]	507
Moldova	505
Iceland	504
Slovenia	503
Norway	492
Cyprus	490
Turkey	452
Macedonia	445
Colombia	424
Argentina	422
Iran	408
Kuwait	403
Morocco[7]	358
Belize	332
International average	500

[1]Met guidelines for sample participation rates only after replacement schools were included.
[2]National Defined Population covers less than 95 percent of National Desired Population.
[3]National Desired Population does not cover all of International Desired Population because coverage falls below 65 percent.
[4]Canada is represented by the provinces of Ontario and Quebec (O, Q) only.
[5]Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.
[6]National Defined Population covers less than 80 percent of National Desired Population.
[7]Nearly satisfied guidelines for sample participation rates after replacement schools were included.
SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 3 on p. 5 of the complete report from which this article is excerpted.)

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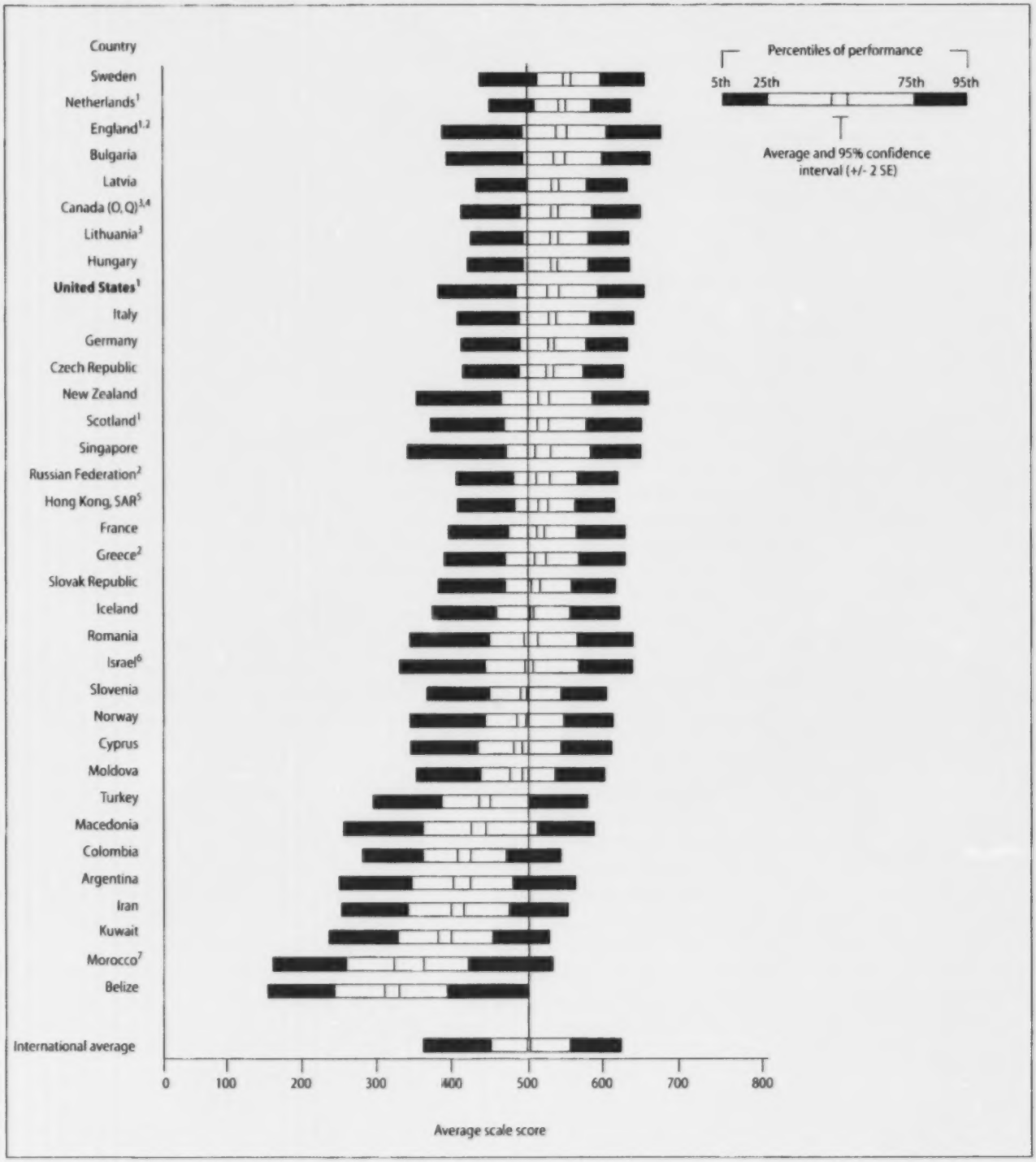
Figure C. Distribution of average combined reading literacy scale scores of fourth-graders by percentiles, by country: 2001



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[7]Nearly satisfied guidelines for sample participation rates after replacement schools were included.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 4 on p. 7 of the complete report from which this article is excerpted.)

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Reading Literacy by Benchmarks

Average scores in figure B indicate how well the United States performs relative to other countries, but the scores do not indicate the proficiency required to reach a particular score. To gain a better understanding of what scores represent in terms of reading proficiency, PIRLS 2001 selected four cutoff points on the combined reading literacy scale labeled *international benchmarks*. These benchmarks were selected to correspond to the score points at or above which the lower quarter, median, upper quarter, and top 10 percent of fourth-graders in the international PIRLS 2001 sample performed.[4]

Student responses at the four benchmarks were analyzed to describe a set of reading skills and strategies displayed by fourth-graders at those points. These descriptions, together with the cut point scores, are listed in figure D.[5]

- On the combined reading literacy scale, 19 percent of the fourth-grade students in the United States reach the top 10 percent benchmark, 41 percent the upper quarter benchmark, 68 percent the median benchmark, and 89 percent the lower quarter benchmark. The percentage of U.S. fourth-graders reaching each of these benchmarks is higher than the international averages.
- Compared to the United States, no other country but England (24 percent) reports a higher percentage of students at the top 10 percent benchmark on the combined reading literacy scale. Sweden (47 percent)

[4]Benchmarking in PIRLS describes the performance of students at four international benchmarks based on the distribution of scores and the pattern of items answered correctly. Proficiency levels for the National Assessment of Educational Progress (NAEP) (i.e., *Basic*, *Proficient*, and *Advanced*) are established by the National Assessment Governing Board based on recommendations from broadly representative panels of educators and the general public who determine what students should know and be able to do at the three levels of performance in each subject area and in each grade assessed.

[5]If students' reading achievement was distributed in the same way in every country, then each country would be expected to have approximately 10 percent of fourth-graders reaching the top 10 percent benchmark, 25 percent the upper quarter benchmark, 50 percent the median benchmark, and 75 percent the lower quarter benchmark.

Figure D. Fourth-graders' reading skills and strategies, and cut point scores, by benchmark points for the combined reading literacy scale: 2001

Benchmark	Cut point scores	Reading skills and strategies[1]
Top 10 percent	615 and above	Demonstrate ability to integrate ideas and information Provide interpretations about characters' feelings and behaviors with text-based support Integrate ideas across the text to explain the broader significance or theme of the story Demonstrate understanding of informational materials by integrating information across various types of materials and successfully applying it to real-world situations
Upper quarter	570 and above	Demonstrate ability to make inferences and recognize some text features in literary texts Make inferences to describe and contrast characters' actions
Median	510 and above	Make elementary interpretations Locate specific parts of text to retrieve information Make observations about whole texts
Lower quarter	435 and above	Retrieve explicitly stated details from various literary and infomational texts

[1]The responses of students who score within 5 points of each of the cut point scores were evaluated to determine reading skills and strategies displayed by fourth-graders at those points. Procedures used for anchoring these items to the benchmarks are explained more fully in the *PIRLS Technical Report* at www.pirls.org.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 5 on p. 8 of the complete report from which this article is excerpted.)

reports a higher share of students at the upper quarter benchmark compared to the United States.

- On the literary subscale, for the United States, 22 percent of students reach the top 10 percent benchmark, 43 percent the upper quarter benchmark, 70 percent the median benchmark, and 90 percent the lower quarter benchmark. The percentage of U.S. fourth-graders reaching each of these benchmarks on the literary subscale is higher than the corresponding international averages.
- On the informational subscale, for the United States, 15 percent of students reach the top 10 percent benchmark, 36 percent the upper quarter benchmark, 66 percent the median benchmark, and 89 percent the lower quarter benchmark. The percentage of U.S. fourth-graders reaching these benchmarks on the informational subscale is higher than the corresponding international averages.

How Different Groups Perform

Achievement by sex

In the United States and many other countries, policymakers and educators are interested not only in overall achievement but also in achievement by specific groups of students. For example, patterns of differences between boys and girls in reading achievement across countries can point to areas where additional educational resources might be focused.

- Fourth-grade girls score higher than fourth-grade boys on the combined reading literacy scale, on average, in every participating PIRLS 2001 country (figure E). In the United States, on average, girls score 18 points higher than boys on the combined reading literacy scale. Internationally, the average score difference between boys and girls ranges from 8 points (Italy) to 27 points (Belize, Iran, and New Zealand).[6]
- Fourth-grade girls score higher than boys on both the literary and informational subscales in all of the participating PIRLS 2001 countries. In the United States, fourth-grade girls, on average, outscore boys by 16 points on both the literary and informational subscales.
- Fourth-grade girls in Sweden, England, the Netherlands, and Bulgaria outscore U.S. girls on the combined reading literacy scale. However, U.S. girls perform better than their counterparts in 21 of the participating PIRLS 2001 countries.
- Fourth-grade boys in the Netherlands and Sweden outperform U.S. boys on the combined reading literacy scale, although U.S. boys perform better than their peers in 22 of the participating PIRLS 2001 countries.

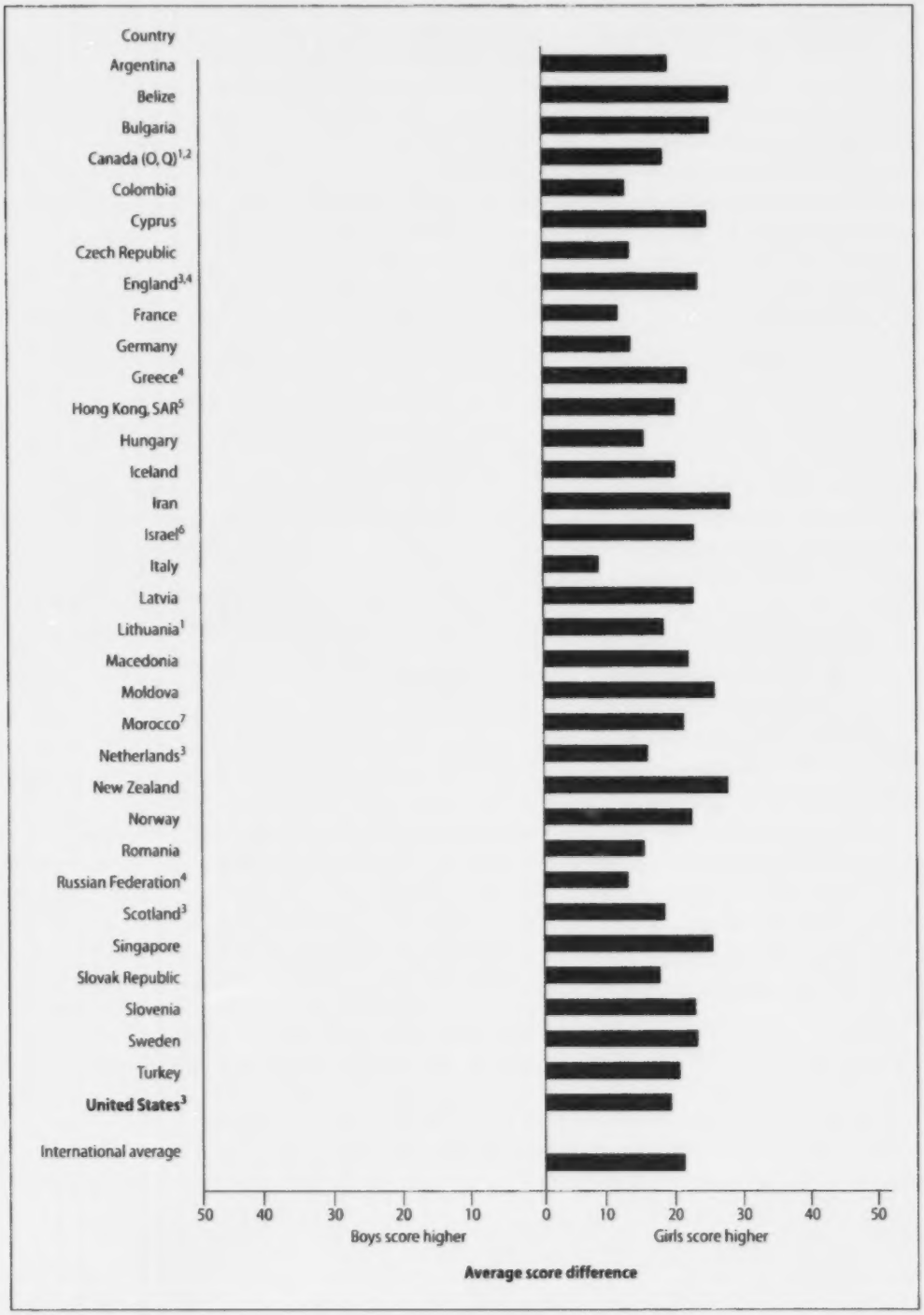
U.S. achievement by race/ethnicity

Another area of interest among policymakers and educators is the achievement of racial/ethnic groups. A number of countries that participated in PIRLS 2001 have large and diverse racial/ethnic groups. However, since these groups vary considerably across countries, it is not possible to compare their performance internationally. Thus, the findings in this section refer only to PIRLS 2001 results for the United States.

- With the exception of Black fourth-graders, each racial/ethnic group in the United States scores higher than the international average (i.e., 500) on the combined reading literacy scale, as well as on the two reading subscales.
- There is considerable variation in scores among the racial/ethnic groups in the United States. On average, White fourth-grade students perform better than Black and Hispanic fourth-graders on the combined reading literacy scale, as well as on the two subscales (figure F). Asian fourth-grade students, on average, also perform better than Black and Hispanic students on the combined reading literacy scale, as well as on the informational subscale. On the literary subscale, Asian students perform better than Black students, while there are no detectable differences in performance between Asian and Hispanic students. There are no detectable differences in scores between White and Asian fourth-grade students across any of the reading scales.
- A larger percentage of White fourth-graders in the United States reach the top 10 percent benchmark on the combined reading literacy scale than do Black or Hispanic fourth-graders. Thus, 25 percent of White fourth-graders reach the top 10 percent benchmark, while 6 percent of Black and 10 percent of Hispanic fourth-graders reach the same benchmark. There is no detectable difference in the percentages of White and Asian fourth-graders who reach the top 10 percent benchmark, but a larger percentage of Asian

[6]Differences in scores by sex are not shown here for Kuwait due to low response rates on the question related to sex. However, the international average includes Kuwait's average scale score.

Figure E. Difference in average scores between boys and girls for the combined reading literacy scale of fourth-graders, by country: 2001



[1]National Desired Population does not cover all of International Desired Population because coverage falls below 65 percent.

[2]Canada is represented by the provinces of Ontario and Quebec (O, Q) only.

[3]Met guidelines for sample participation rates only after replacement schools were included.

[4]National Defined Population covers less than 95 percent of National Desired Population.

[5]Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

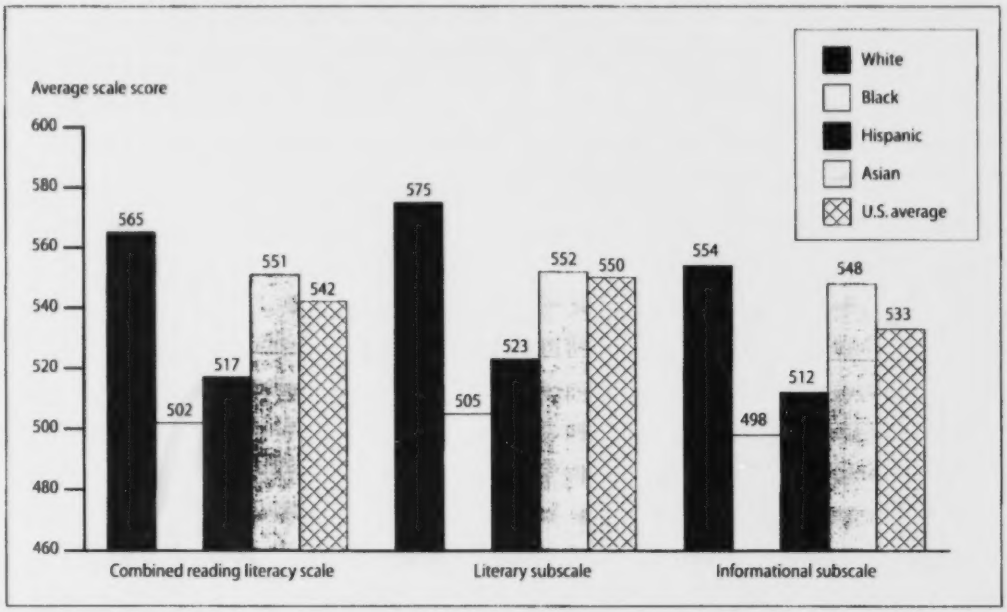
[6]National Defined Population covers less than 80 percent of National Desired Population.

[7]Nearly satisfied national guidelines for sample participation rates after replacement schools were included.

NOTE: All average score differences reported are statistically significant.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 7 on p.11 of the complete report from which this article is excerpted.)

Figure F. U.S. fourth-graders' average scores for the combined reading literary scale, literacy subscale, and informational subscale, by race/ethnicity: 2001



NOTE: Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified. The United States met guidelines for sample participation rates after replacement schools were included.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 9 on p. 13 of the complete report from which this article is excerpted.)

fourth-graders reach this benchmark than do Black fourth-graders.

- A larger percentage of both White and Asian fourth-graders in the United States reach the upper quarter benchmark on the combined scale than do Black and Hispanic fourth-graders. Thus, 51 percent of White and 46 percent of Asian fourth-graders reach the upper quarter benchmark, while 19 percent of Black and 27 percent of Hispanic fourth-graders reach the same benchmark.

U.S. achievement by control of school

On average, fourth-grade students in private schools in the United States score significantly higher than fourth-grade students in public schools on the combined reading literacy scale, and also on the literary and informational subscales. For example, on the combined reading literacy scale and the informational subscale, on average, fourth-grade students in private schools score 42 points higher than students in public schools. On the literary subscale, private school fourth-graders score an average of 45 points higher than public school fourth-graders.

U.S. achievement by poverty level in public schools

One measure of poverty in U.S. public elementary schools is the percentage of students eligible for free or reduced-price lunch.[7] In order to examine how fourth-graders' scores on the combined reading literacy scale are associated with their schools' poverty level (percentage of students receiving free or reduced-price lunch), U.S. public schools were classified into five groups: (1) schools with the lowest poverty levels of less than 10 percent; (2) schools with poverty levels ranging from 10 to 24.9 percent; (3) schools with poverty levels ranging from 25 to 49.9 percent; (4) schools with poverty levels ranging from 50 to 74.9 percent; and (5) schools with the highest poverty levels of 75 percent or more.[8]

- Fourth-graders in U.S. public elementary schools with the highest poverty levels score lower on the combined reading literacy scale compared to their counterparts in schools with lower poverty levels.
- Fourth-graders in schools with intermediate poverty levels of 10 to 24.9 percent and 25 to 49.9 percent score higher on the combined reading literacy scale than students in schools with poverty levels of 50 to 74.9 percent and 75 percent or more. However, there are no detectable differences in scores between U.S.

[7] Data for the percentage of students eligible for free or reduced-price lunch in U.S. public elementary schools participating in PIRLS 2001 were taken from the U.S. Department of Education, NCES Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1999–2000.

[8] Since the measure of school poverty used for the United States in this analysis cannot be applied to other countries, only data for U.S. schools are used in these comparisons.

fourth-graders in public schools with poverty levels of 10 to 24.9 percent and 25 to 49.9 percent.

- On average, lower percentages of fourth-graders in the highest poverty public schools in the United States reach the upper two international benchmarks (top 10 percent and upper quarter) than their counterparts in the lowest poverty schools. For example, in the highest poverty schools, about 3 percent of fourth-grade students reach the top 10 percent international benchmark, while in the lowest poverty schools, about 34 percent of fourth-grade students reach the same benchmark. Additionally, about 14 percent of students in the highest poverty schools reach the upper quarter benchmark, but in the lowest poverty schools, 64 percent of students reach that benchmark.

Reading and Instruction in the Classroom

Reading curriculum and instructional time

Do school principals and teachers encourage reading instruction through a variety of initiatives? What proportion of the school day is spent in reading instruction? Answers to these questions can give an indication of the emphasis that reading instruction receives in the curriculum of a country.

- According to school principals, 72 percent of U.S. fourth-graders attend schools that have a written statement describing the reading curriculum, which is nearly double the international average of 37 percent.
- Almost all U.S. fourth-grade students (95 percent) attend schools with a curricular emphasis on reading. This is greater than the international average of 78 percent.
- Principals report that 95 percent of U.S. fourth-grade students attend schools with informal initiatives to encourage reading, which is greater than the international average of 76 percent.[9]
- Based on teacher reporting, 65 percent of U.S. fourth-graders receive more than 6 hours of reading instruction per week, a higher percentage than the international average of 28 percent (figure G). This percentage is also higher than the national average in 31 of the other 34 participating PIRLS 2001 countries.
- The average combined reading literacy achievement scores of U.S. fourth-graders do not vary by the amount of instructional time they receive.

Teacher preparation and experience

Examining teachers' preparation and tenure indicates the experience of teachers in the classroom. On the teacher questionnaire in PIRLS 2001, teachers were asked about the training they have received and the number of years they have been teaching.

- Based on teacher reports of their preparation for teaching, 95 percent of U.S. fourth-graders are taught by certified teachers.[10] This is higher than the corresponding international average of 89 percent.
- U.S. fourth-graders appear to be taught by teachers who have more experience teaching fourth grade than their counterparts in the majority of the participating PIRLS 2001 countries. On average, U.S. fourth-grade students are taught by teachers who have been teaching fourth grade for 7 years.[11] Twenty-six of the other 34 participating countries reported that their fourth-graders are taught by teachers with fewer years of experience teaching fourth grade.

Reading Outside of School

Reading outside of school for enjoyment

To investigate the reading habits of fourth-graders outside of school, PIRLS asked students a series of questions about whether they read for fun outside of school and how often they did so. Students could indicate that they read for fun "every day or almost every day," "once or twice a week," "once or twice a month," or "never or almost never."

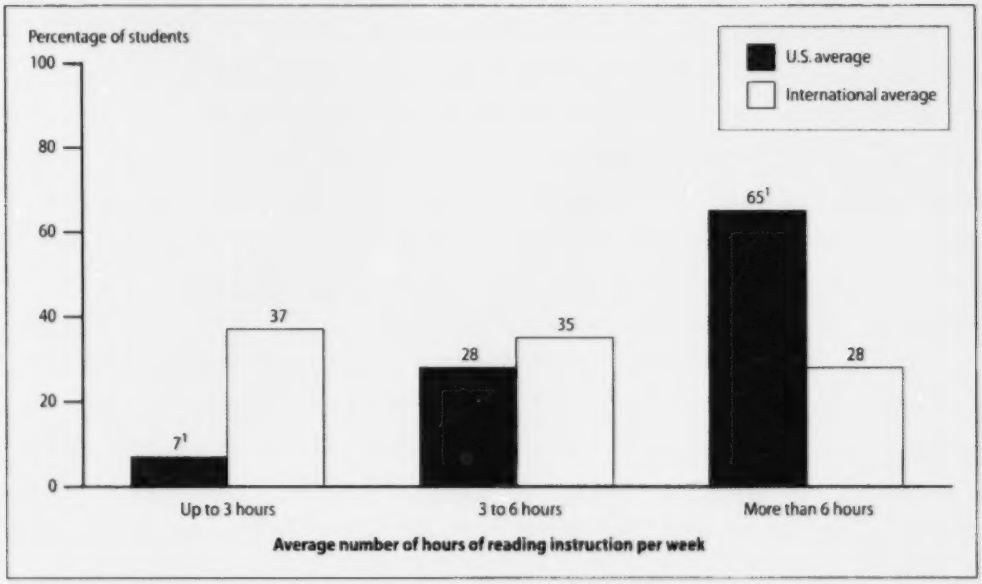
- Thirty-five percent of U.S. fourth-graders report reading for fun every day or almost every day. This percentage is smaller than the international average of 40 percent.
- Thirty-two percent of U.S. fourth-graders report that they never or almost never read for fun outside of school, a significantly higher percentage than the international average of 18 percent.

[9]Informal initiatives to promote reading include book clubs, independent reading contests, and schoolwide recreational reading periods to encourage students to read.

[10]Indicates that students are taught by a teacher with a teaching certificate. The NAEP reading assessment data from 1994 show that 95 percent of the teachers of fourth-grade students were certified in the state in which they taught. In the 2001 Schools and Staffing Survey (SASS), 97 percent of fourth-grade teachers reported that they were certified.

[11]In the 2001 SASS, fourth-grade teachers reported that, on average, they had been teaching for 14 years.

Figure G. Percentage of fourth-graders by average number of hours of reading instruction each week: 2001



[1]Significant difference between U.S. average and international average in this category.

NOTE: The United States met guidelines for sample participation rates after replacement schools were included.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001. (Originally published as figure 11 on p.16 of the complete report from which this article is excerpted.)

- In the United States, fourth-graders who read for fun every day or almost every day have higher average scores on the combined reading literacy scale compared to those who never or almost never read for fun, or do so once or twice a month. This pattern holds at the international level as well, based on the international averages.

Choice of activities outside of school

To learn more about students' reading habits, PIRLS 2001 asked students about their choice of reading materials and how often they read different types of texts when they are not in school.

- In the United States, 92 percent of fourth-graders report reading for information at least once or twice a month, a higher percentage than those who report reading either literary fiction, such as stories or novels (79 percent), or comics (43 percent) at least once or twice a month.
- In the United States, 43 percent of fourth-graders report that they read comics at least once or twice a month, a significantly lower percentage than the international average of 74 percent.
- U.S. fourth-graders who report reading literary fiction outside of school at least once or twice a month have higher scores on the combined reading literacy scale than those who never or almost never do so. This pattern is also evident at the international level, based on international averages.
- No measurable differences in scores on the combined reading literacy scale are detected between U.S. fourth-graders who read informational materials every day or almost every day, and those who never or almost never do so.

PIRLS 2001 also asked students about their TV- and video-watching habits.

- Eighteen percent of U.S. fourth-graders report watching TV or videos on a normal school day for 5 hours or more. This is significantly higher than the international average of 12 percent. On average, U.S. fourth-graders report watching TV or videos daily for a greater number of hours than the international average (2.2 hours vs. 2 hours).
- Looking at the international average for the combined reading literacy scale, fourth-graders who

watch TV for more than 5 hours on a normal school day score lower than those who watch TV for 3 to 5 hours a day or less frequently. In the United States, the same finding holds.

Sample Items From PIRLS 2001

The sample items presented here show actual student responses and compare U.S. fourth-graders' performance to the international average. The items also demonstrate acceptable performance at the four benchmarks (top 10 percent, upper quarter, median, and lower quarter). The reading passage (exhibit A) and all of these items have been released to the public by IEA.

Exhibit A. One of the reading passages used in PIRLS 2001

The Upside-Down Mice

by Roald Dahl

Once upon a time there lived an old man of 87 whose name was Labon. All his life he had been a quiet and peaceful person. He was very poor and very happy.

When Labon discovered that he had mice in his house, it did not bother him much at first. But the mice multiplied. They began to bother him. They kept on multiplying and finally there came a time when even he could stand it no longer.

"This is too much," he said. "This really is going a bit too far." He hobbled out of the house down the road to a shop where he bought some mousetraps, a piece of cheese and some glue.

When he got home, he put the glue on the underneath of the mousetraps and stuck them to the ceiling. Then he baited them carefully with pieces of cheese and set them to go off.

That night when the mice came out of their holes and saw the mousetraps on the ceiling, they thought it was a tremendous joke. They walked around on the floor, nudging each other and pointing up with their front paws and roaring with laughter. After all, it was pretty silly, mousetraps on the ceiling.

When Labon came down the next morning and saw that there were no mice caught in the traps, he smiled but said nothing.

He took a chair and put glue on the bottom of its legs and stuck it upside-down to the ceiling, near the mousetraps. He did the same with the table, the television set and the lamp. He took everything that was on the floor and stuck it upside-down on the ceiling. He even put a little carpet up there.

The next night when the mice came out of their holes they were still joking and laughing about what they had seen the night before. But now, when they looked up at the ceiling, they stopped laughing very suddenly.

"Good gracious me!" cried one. "Look up there! There's the floor!"

"Heavens above!" shouted another. "We must be standing on the ceiling!"

"I'm beginning to feel a little giddy," said another.

"All the blood's going to my head," said another.

"This is terrible!" said a very senior mouse with long whiskers. "This is really terrible! We must do something about it at once!"

"I shall faint if I have to stand on my head any longer!" shouted a young mouse.

"Me too!"

"I can't stand it!"

"Save us! Do something, somebody, quick!"

They were getting hysterical now. "I know what we'll do," said the very senior mouse. "We'll all stand on our heads, then we'll be the right way up."

Obediently, they all stood on their heads, and after a long time, one by one they fainted from a rush of blood to their brains.

When Labon came down the next morning the floor was littered with mice. Quickly he gathered them up and popped them all in a basket.

So the thing to remember is this: whenever the world seems to be terribly upside-down, make sure you keep your feet firmly on the ground.

SOURCE: Previously published on p. 20 of the complete report from which this article is excerpted.

Sample item at the top 10 percent PIRLS 2001 international benchmark, with response illustrating performance at this benchmark

You learn what Labon is like from the things he does. Describe what he is like and give two examples of what he does that show this.

He was smart. He thought of a good way to trick the mice.

This sample item was worth up to 3 points. The sample response shown earned partial credit (2 out of 3 points).

Percentage of students earning at least 2 points	
U.S. average	49*
International average	30

*Significant difference between U.S. average and international average.

Sample item at the upper quarter PIRLS 2001 international benchmark, with response illustrating performance at this benchmark

Do you think the mice were easy to fool? Give one reason why or why not.

No It took two nights to trick them.

This sample item was worth 1 point. The sample response shown earned full credit.

Percentage of students earning full credit (1 point)	
U.S. average	54*
International average	37

*Significant difference between U.S. average and international average.

Sample item at the top 10 percent PIRLS 2001 international benchmark, with response illustrating performance at this benchmark

Why did Labon smile when he saw there were no mice in the traps?

Labon knew the mice did not know his trick yet.

This sample item was worth 1 point. The sample response shown earned full credit.

Percentage of students earning full credit (1 point)	
U.S. average	47*
International average	31

*Significant difference between U.S. average and international average.

Sample item at the median PIRLS 2001 international benchmark, with response illustrating performance at this benchmark

Which words best describe this story?

- ○ *serious and sad*
- ○ *scary and exciting*
- ● *funny and clever*
- ○ *thrilling and mysterious*

This sample item was worth 1 point. Students earned full credit by selecting the correct multiple-choice response (indicated by the shaded oval).

Percentage of students earning full credit (1 point)	
U.S. average	81*
International average	68

*Significant difference between U.S. average and international average.

Sample item at the lower quarter PIRLS 2001 international benchmark, with response illustrating performance at this benchmark

Where did Labon put the mice when he picked them up from the floor?

In a basket

This sample item was worth 1 point. The sample response shown earned full credit.

Percentage of students earning full credit (1 point)	
U.S. average	87
International average	84

Sample item at the lower quarter PIRLS 2001 international benchmark, with response illustrating performance at this benchmark

Why did Labon want to get rid of the mice?

- ○ *He had always hated mice.*
- ● *There were too many of them.*
- ○ *They laughed too loudly.*
- ○ *They ate all his cheese.*

This sample item was worth 1 point. Students earned full credit by selecting the correct multiple-choice response (indicated by the shaded oval).

Percentage of students earning full credit (1 point)	
U.S. average	84*
International average	79

*Significant difference between U.S. average and international average.

IEA International Reading Literacy Study of 1991

Reading performance over time

Ten years before PIRLS 2001 was administered, the IEA conducted the IEA International Reading Literacy Study of 1991. This study, like PIRLS 2001, assessed the reading literacy of fourth-graders in over 30 countries using 42 items taken from 6 reading passages. However, when a follow-up for the 1991 study was being planned, the IEA decided to discontinue it and develop a new assessment incorporating the latest approaches to measuring reading literacy (Campbell et al. 2001). This new study would become PIRLS 2001.

In anticipation of the simultaneous release of PIRLS 2001 and the IEA International Reading Literacy Study of 1991, NCES commissioned a comparative analysis of the two assessments. Frameworks, passages, and items in both studies were reviewed and compared. Results indicate that the two studies are quite different. To cite a few examples: Reading passages in PIRLS 2001 were found to be "longer, more engaging, and more complex in most cases" than those found in the IEA International Reading Literacy Study of 1991 (Kapinus 2003, p. 8). PIRLS 2001 also used many more constructed-response (essay-type) questions and presented them in a way "that might have improved students' motivation to read and respond to the texts" (Kapinus 2003, p. 8). The analysis also found that, in general, PIRLS 2001 tapped skills "requiring deeper thinking" than those in the IEA International Reading Literacy Study of 1991 (Kapinus 2003, p. 8). Because of these and other differences, it is impossible to directly compare results from these two assessments. However, separately, each study provides important clues about how well students in these countries, including U.S. fourth-graders, perform in reading literacy.

While participating in PIRLS 2001, some countries expressed interest in comparing reading performance between 1991 and 2001. Since comparisons between the two assessments were impossible, the IEA gave participating countries an opportunity to readminister the 1991 study during the PIRLS 2001 administration. This readministered study was identical in content, timing, and directions to that given to students in 1991 and allowed comparisons of the performance of students in 2001 with those in 1991. A separate sample of students was drawn in each country so

as not to overburden students assessed in PIRLS 2001. Nine countries, including the United States, participated in the 2001 readministration of the IEA International Reading Literacy Study of 1991.

Performance on the IEA International Reading Literacy Study of 1991

- Based on the readministration of the 1991 study in 2001, no detectable change is observed in the achievement of fourth-graders on the combined reading literacy scale in the United States in 2001 compared to 1991.
- Fourth-graders in five of the nine participating countries perform significantly better, on average, on the 1991 study combined reading literacy scale in 2001 compared to 1991, while fourth-graders in three countries show no detectable difference in average achievement between 1991 and 2001. One country, Sweden, has a significantly lower average score in 2001 than in 1991.

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Martin, M.O., Mullis, I.V.S., and Kennedy, A.M. (2003). *PIRLS 2001 Technical Report*. Chestnut Hill, MA: Boston College.

Data sources: The Progress in International Reading Literacy Study (PIRLS), 2001; the International Association for the Evaluation of Educational Achievement (IEA) International Reading Literacy Study of 1991; and the NCES Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1999–2000.

For technical information, see the complete report:

Ogle, L.T., Sen, A., Pahlke, E., Jocelyn, L., Kastberg, D., Roey, S., and Williams, T. (2003). *International Comparisons in Fourth-Grade Reading Literacy: Findings From the Progress in International Reading Literacy Study (PIRLS) of 2001* (NCES 2003–073).

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To obtain the complete report (NCES 2003–073), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Comparative Indicators of Education in the United States and Other G-8 Countries: 2002

Joel D. Sherman, Steven D. Honegger, and Jennifer L. McGivern

This report was originally published as the Highlights of the Statistical Analysis Report of the same name. Data sources, outlined at the end of this article, include collections and assessments of the Organization for Economic Cooperation and Development (OECD) and the International Association for the Evaluation of Educational Achievement (IEA).

Introduction

This report is designed to describe how the U.S. education system compares with the education systems in the Group of Eight, or G-8, countries. These countries, which include Canada, France, Germany, Italy, Japan, the Russian Federation, the United Kingdom, and the United States, are among the world's most economically developed economies. *Comparative Indicators of Education in the United States and Other G-8 Countries: 2002* draws on the most current information about education from the Indicators of National Education Systems (INES) project at the Organization for Economic Cooperation and Development (OECD), the international assessments conducted by the International Association for the Evaluation of Educational Achievement (IEA), and more recently, the OECD's Program for International Student Assessment (PISA). The main findings of this report are highlighted below. The highlights are organized around the five major sections of the report.

Context of Education

Potential demand for education

Relative size of the school-age population. Primary and secondary school-age children (between the ages of 5 and 19) represented a larger proportion of the total population in the United States than in all seven other countries presented except the Russian Federation. The United States was one of only three G-8 countries whose school-age population grew in absolute number between 1992 and 1999—the other two being the United Kingdom and Germany.

Educational attainment of the population

Completion of upper secondary education. In 1999, the proportion of adults who completed at least an upper secondary education was higher in the United States than in the six other countries presented. Among younger adults (ages 25 to 34), the upper secondary completion rate was still higher in the United States than in five of the six other countries presented, despite broadened access to upper secondary education in these countries. Only Japan had a higher upper secondary school completion rate for people in this age group than the United States.

Completion of higher education. Similarly, in 1999, the United States had a higher proportion of all adults (ages 25 to 64), as well as younger adults (ages 25 to 34), who had completed a first university degree than the six other countries presented (figure A). However, the difference in the proportion of younger adults (ages 25 to 34) and older adults (ages 55 to 64) who had completed a first university degree was smaller in the United States than in Japan and Canada, suggesting that these two countries have expanded access to higher academic education to a larger segment of their populations in recent years.

Preprimary and Primary Education

Access to preprimary education

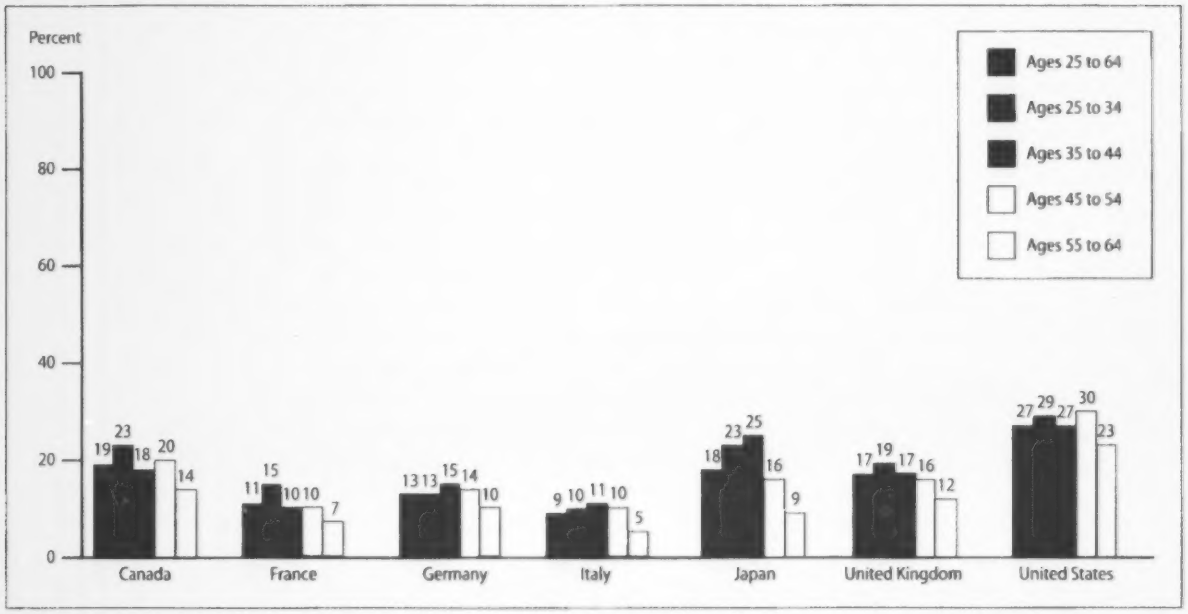
Participation in preprimary education. In 1999, enrollment rates of children ages 3 to 5 in preprimary education were lower in the United States than in France, Germany, Italy, and Japan. France and Italy had nearly universal enrollment of 3- to 5-year-olds in preprimary education. The United States had lower enrollment rates of 3- and 4-year-olds in preprimary education than all other countries presented except Canada and lower enrollment rates of 5-year-olds in preprimary and primary education than all other countries presented except Canada and Germany (figure B).

Human resources in primary education

Student/teacher ratios in primary education. The United States had the second-lowest student/teacher ratio in primary education of the countries presented in 1999 (figure C). Only Italy had a lower student/teacher ratio.

Teachers' salaries in public primary education. In 1999, primary school teachers in the United States with minimum qualifications had higher average starting salaries than teachers in France, Italy, England, and Scotland, but lower average starting salaries than teachers in Germany. U.S. primary teachers with minimum qualifications at the top of the salary schedule had higher average salaries than their counterparts in all of these countries.

Figure A. Percentage of the population ages 25 to 64 that has completed at least a first university degree, by age group and country: 1999



NOTE: The United Kingdom includes England, Northern Ireland, Scotland, and Wales. Data for the United Kingdom exclude individuals who have completed short programs that do not provide access to higher education, since these programs do not meet the minimum requirements to qualify as upper secondary education based on the international standard (ISCED).

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, 2001, table A 2.2b. (Previously published as figure 2b on p.19 of the complete report from which this article is excerpted.)

Achievement of primary school students

Achievement in mathematics and science. According to the Third International Mathematics and Science Study conducted in 1994–95 (TIMSS 1995), American fourth-graders had higher average scores in both mathematics and science than their counterparts in Canada, England, and Scotland, but lower average scores in mathematics than Japanese students. No differences were detected in Japanese fourth-grade students' average scores in science relative to American students' average scores.

Secondary Education

Human resources in secondary education

Student/teacher ratios in secondary education. In contrast with primary education, in 1999, the United States had the second-highest student/teacher ratio in secondary education of the eight countries presented—second only to Canada (figure C).

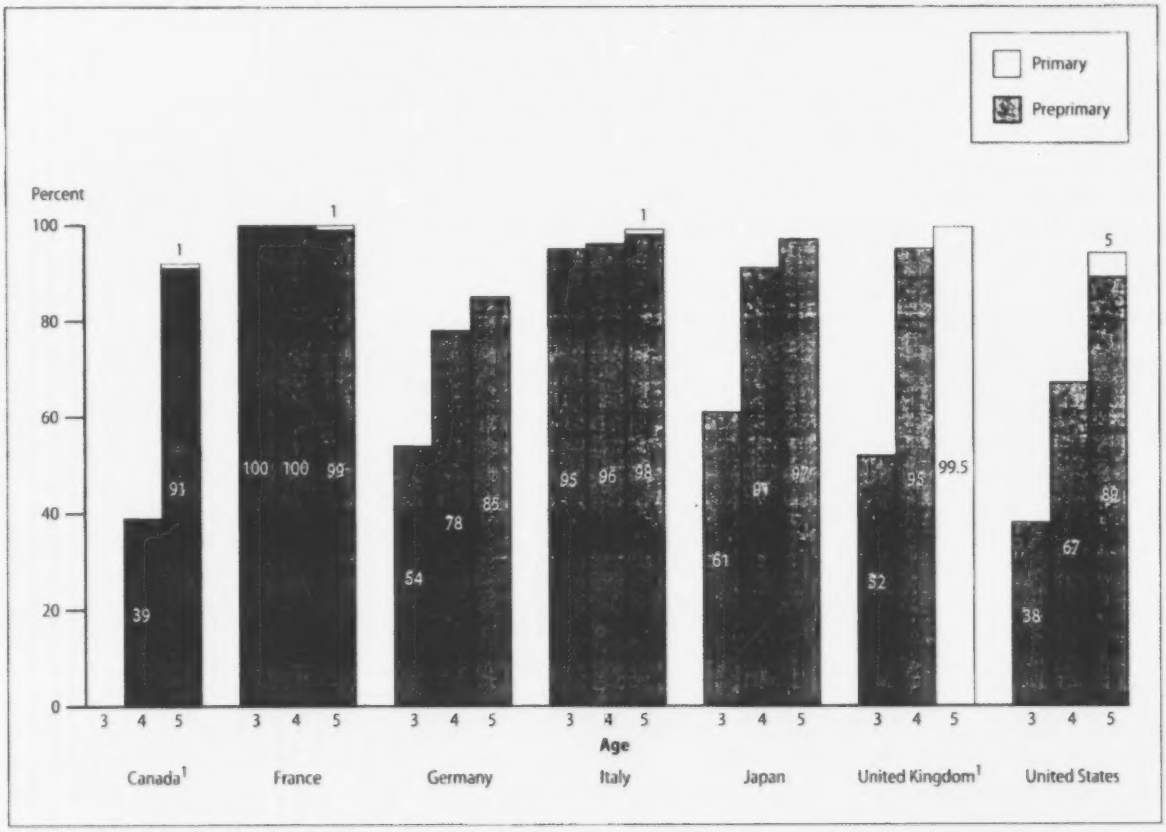
Teachers' salaries in public upper secondary education. Similar to teachers' salaries in primary education, in 1999, public upper secondary teachers in the United States with minimum qualifications had higher average starting salaries than teachers in France, Italy, England, and Scotland, but lower starting salaries than teachers in Germany. U.S. public upper secondary teachers with minimum qualifications at the top of the salary schedule had higher average salaries than teachers in all other countries reporting data except Germany.

Achievement of secondary school students

Achievement in mathematics and science. According to TIMSS 1999,[1] American eighth-grade students had lower average scores in both mathematics and science than Japanese and Canadian students, but higher average scores than Italian students. Students from the Russian Federation also scored higher, on average, in mathematics, but no differences were detected in the scores of Russian and U.S. students in science. No differences were detected in the

[1] In earlier reports, TIMSS 1999 is also referred to as TIMSS-R (TIMSS–Repeat).

Figure B. Percentage of children ages 3 to 5 enrolled in preprimary and primary education, by selected age and country: 1999



[1]The preprimary enrollment for 3-year-olds in Canada and for 5-year-olds in the United Kingdom rounds to zero.

NOTE: The United Kingdom includes England, Northern Ireland, Scotland, and Wales. To conform to the international standard, figures for preprimary education for the United States include enrollments in kindergarten and prekindergarten classes in elementary schools in preprimary education. Figures for the United States are from the Current Population Survey and do not correspond with figures published previously by OECD. Only 0.2 percent of 5-year-olds in the United Kingdom are enrolled in preprimary education; over 99 percent are enrolled in primary education.

SOURCE: Organization for Economic Cooperation and Development, Education Database, 2001; U.S. Census Bureau, Current Population Survey, October 1998. (Previously published as figure 5b on p. 27 of the complete report from which this article is excerpted.)

mathematics scores of English and U.S. students, but U.S. students had lower average science scores than their English counterparts.

Proficiency in reading. In 2000, American 15-year-olds had lower average scores than their Canadian counterparts on the PISA reading literacy scale, but no difference was detected between average U.S. 15-year-olds' performance compared to the performance of 15-year-olds in France, Italy, Germany, Japan, or the United Kingdom. The proportion of 15-year-olds performing at the highest level was higher in the United States than in Italy and the Russian Federation, but no difference was detected between the United States and Canada, France, Germany, Japan, and the United Kingdom.

Achievement in civic education. American 14-year-olds had higher scores on the assessment of total civic knowledge (comprised of a civic content and civic skills set of questions) than their counterparts in England, Germany, and the Russian Federation on the Civic Education Study (1999). No difference was detected in the scores of American and Italian 14-year-olds.

Completion of upper secondary education

Graduation rates from upper secondary education. In 1999, the United States had a lower secondary school graduation rate than Japan, Germany, and France, but a higher rate than Italy.

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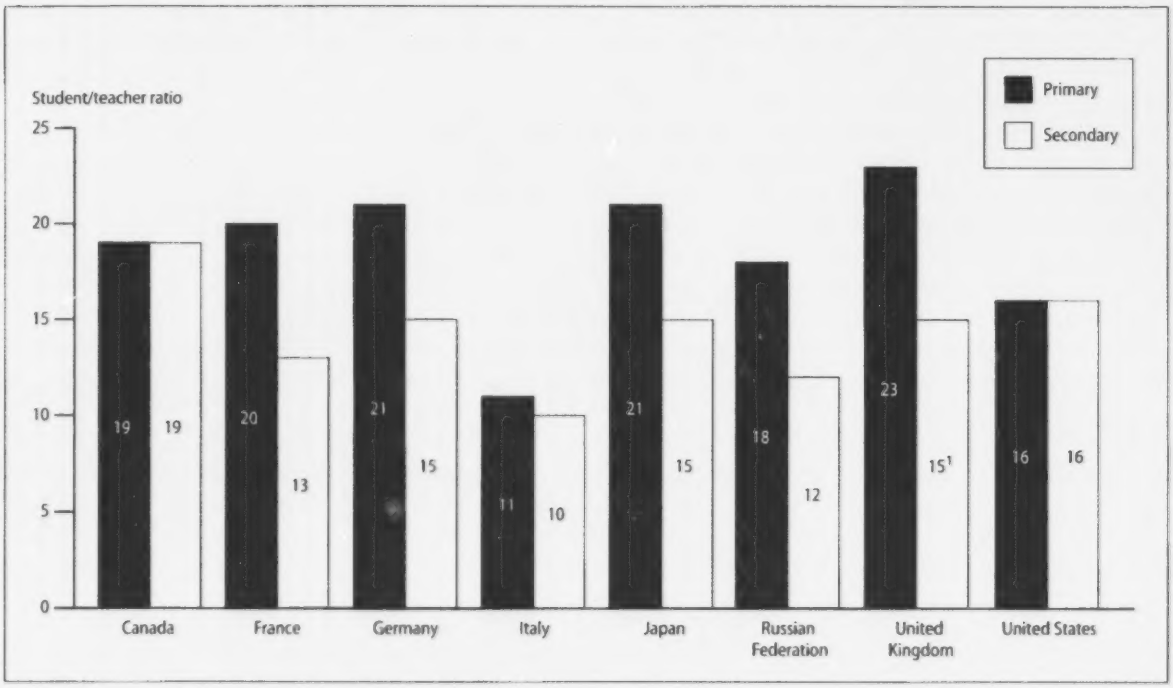
Figure C. Ratio of full-time-equivalent students to full-time-equivalent teachers in public and private primary and secondary schools, by country: 1999



[1]Includes only general programs.

NOTE: The United Kingdom includes England, Northern Ireland, Scotland, and Wales.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, 2001, table D 5.1. (Taken from figures 6 and 12 on pp. 29 and 43 of the complete report from which this article is excerpted.)

Expenditures for primary and secondary education

Expenditures per student for primary education. Expenditures per student for primary education were higher in the United States than in the five other countries presented in 1994 and 1998.

Expenditures per student for secondary education. Expenditures per student for secondary education were also higher in the United States than in the five other countries that reported data in 1994 and 1998.

Expenditures for primary and secondary education as a percent of gross domestic product (GDP). While the United States had higher expenditures per student for primary and secondary education compared to the other countries presented, the United States placed in the middle of the countries presented based on public expenditures for primary and secondary education as a percent of GDP in 1998. With the addition of private expenditures for primary and secondary education, the United States still placed in the middle of the countries presented based on total public and private expenditures as a percent of GDP—behind France and Canada, about the same as Germany, and ahead of Italy and Japan.

Higher Education

Access to higher education

Participation in higher education. The enrollment rate in higher education was higher in the United States than in the five other countries presented in 1999. While the net enrollment rate in higher education was relatively stable in the United States, France, and Germany between 1994 and 1999, the rate increased in the United Kingdom.

Completion of higher education

Graduation from first university programs of higher education. In 1999, the graduation rate from first university programs of medium length (3 to less than 5 years) was higher in the United States than in all G-8 countries except the United Kingdom. In the United States, the graduation rate from first university programs that prepare students for advanced research training and highly qualified professions

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was more than three and a half times the graduation rate from technical and vocational programs that prepare students for direct entry into the labor market.

Science degrees

First university degrees in science,[2] including mathematics. In 1999, the United States awarded a smaller percentage of first university degrees in science than Canada, France, Germany, and the United Kingdom. About 10 percent of all first university degrees awarded in science in the United States were in mathematics and statistics—the lowest percentage of the five countries presented.

Expenditures for higher education

Expenditures per student for higher education. In 1998, expenditures per student for higher education were higher in the United States than in all other countries presented—more than twice as high as in Germany, Japan, and the United Kingdom, and more than two and one-half times as high as in France. Between 1995 and 1998, all countries presented showed increases in average expenditures per student for higher education. During this period, the gap widened in average expenditures per student for higher education between the United States and the other countries presented.

Expenditures for higher education as a percent of GDP. In 1998, public expenditures for higher education as a percent of GDP were higher in the United States than in the six other countries presented, except Canada. With the addition of private expenditures, the United States replaced Canada as the country with the highest expenditures for higher education as a percent of GDP. This contrasts with the position of the United States (in the middle of the six countries) for expenditures on primary and secondary education as a percent of GDP.

Education and the Labor Force

Labor market outcome of education

Labor force participation rates. In 1999, adults ages 25 to 64 in the United States who completed upper secondary education (high school or its equivalent) had a higher labor force participation rate than high school noncompleters. The difference in labor force participation rates between upper secondary school completers and noncompleters was smaller in the United States than in Canada, Germany, Italy, and the United Kingdom; about the same as in France; and greater than in Japan.

In 1999, adults ages 25 to 64 in the United States who completed a program of academic higher education had a labor force participation rate that was 8 percentage points higher than the participation rate of adults who completed high school or its equivalent. The difference in labor force participation rates between completers of academic higher education and completers of upper secondary education (high school in the United States) was smaller in the United States than in Germany, Italy, and Japan; about the same as in the United Kingdom; and greater than in Canada and France.

Average earnings. In 1999, adults ages 25 to 64 in the United States who completed less than an upper secondary education (high school) earned, on average, about 67 percent of the earnings of adults who completed upper secondary education. The earnings disadvantage for noncompleters of upper secondary education was smaller in the United States than in the United Kingdom and Italy, but greater than in Germany, Canada, and France.

In the United States, the earnings of adults ages 25 to 64 who completed a program of academic higher education were, on average, about 180 percent of the earnings of completers of upper secondary education. The relative advantage of U.S. higher education completers over upper secondary education completers was greater than in the other four countries presented, although in every country presented those who completed academic higher education earned more than those who completed only upper secondary education.

Data sources:

OECD: Indicators of National Education Systems (INES) project—including data from OECD's *Education at a Glance* (1996, 2000, 2001) and the OECD 2001 database—and Program for International Student Assessment (PISA) 2000.

IEA: Third International Mathematics and Science Study (TIMSS), 1995 and 1999; and Civic Education Study (CivEd), 1999.

Other: The U.S. Census Bureau's Current Population Survey (CPS) and International Database; the NCES Common Core of Data (CCD), Integrated Postsecondary Education Data System (IPEDS), and Schools and Staffing Survey (SASS); and national data sources for other member countries.

For technical information, see the complete report:

Sherman, J.D., Honegger, S.D., and McGivern, J.L. (2003). *Comparative Indicators of Education in the United States and Other G-8 Countries: 2002* (NCES 2003–026).

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To obtain the complete report (NCES 2003–026), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

[2] "Science" is defined as comprising four content areas: computing, life sciences, mathematics and statistics, and physical sciences.

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The Condition of Education 2003

This article was originally published as the Commissioner's Statement in the Compendium of the same name. The universe and sample survey data are from various studies carried out by NCES, as well as surveys conducted elsewhere, both within and outside of the federal government.

Introduction

With the creation of the original Department of Education in 1867, the Congress declared that it should "gather statistics and facts on the condition and progress of education in the United States and Territories." The National Center for Education Statistics (NCES) currently responds to this mission for the Department of Education through such publications as *The Condition of Education*, a mandated report submitted to Congress on June 1st each year.

Reauthorization of the Center through the Education Services Reform Act of 2002 (P.L. 107–279) reaffirms this mandate. The Act calls upon NCES to release information that is valid, timely, unbiased, and relevant.

Recognizing that reliable data are critical in guiding efforts to improve education in America, *The Condition of Education 2003* presents indicators of important developments and trends in American education. Recurrent themes underscored by the indicators include participation and persistence in education, student performance and other outcomes, the environment for learning, and societal support for education. In addition, this year's special analysis examines children's reading achievement and classroom experiences in kindergarten and 1st grade, with a focus on the school, classroom, and home factors associated with the likelihood of children becoming good readers.

The main findings in this volume are summarized in this statement. First, the findings of a special analysis of children's reading achievement in kindergarten and 1st grade are summarized. Then, the main findings of the 44 indicators that appear in the six following sections of the report are summarized section by section.

Special Analysis of Reading—Young Children's Achievement and Classroom Experiences

This year's special analysis discusses findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), which is following a nationally representative sample of children from kindergarten through 5th grade to collect information on their reading achievement, home literacy environment, and reading instruction. The ECLS-K

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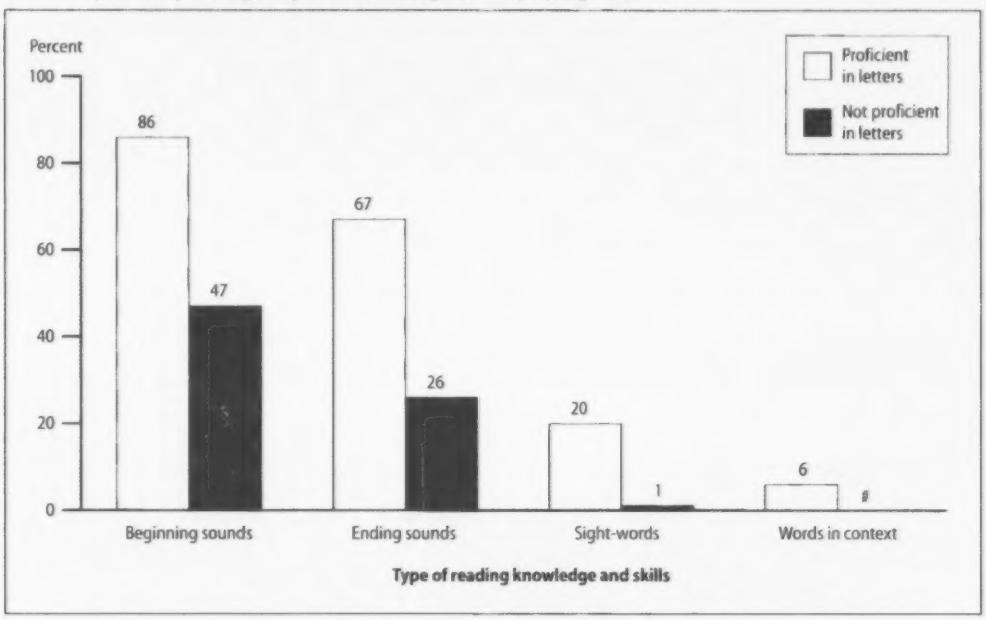
survey provides current data on the reading skills of young children, focusing on their experiences in kindergarten through 1st grade and the classroom experiences of kindergartners who are beginning to read.

- The differences in children's reading skills and knowledge, often observed in later grades, appear to be present when children enter kindergarten and persist or increase throughout the first 2 years of school. For example, when children entered kindergarten (in fall 1998) and after 2 years of school (in spring 2000), White children had higher assessment scores in reading than Black and Hispanic children, and children from poor families had lower scores than children from nonpoor families.
- The resources that children possessed when they began kindergarten, such as their early literacy skills and the richness of their home literacy environment, were related to their reading skills and knowledge upon entering kindergarten and their gains in reading achievement by the end of kindergarten (e.g., figure A) and 1st grade.
- During kindergarten and 1st grade, children from less advantaged family backgrounds made gains that helped close the gap between themselves and their more advantaged peers in terms of basic reading skills, such as recognizing letters; however, on more difficult skills, such as reading simple words, the gap between these groups widened.
- Rates of enrollment in full-day and half-day kindergarten classes are related to where the children live, their race/ethnicity, and the poverty level of their families. In 1998–99, enrollment rates in full-day kindergarten were higher in the South (83 percent) than in the Northeast, Midwest, and West (41, 45, and 23 percent, respectively). Enrollment rates were also higher in urban and rural areas (59 and 65 percent, respectively) than in suburban areas (45 percent), and higher for Black children than White, Hispanic, and Asian children (79 vs. 49, 46, and 40 percent, respectively).
- Full- and half-day public school kindergarten classes are alike in several ways, although full-day programs can and do devote more time to certain aspects of instruction. No differences were found between full- and half-day kindergarten programs in the percentage of time teachers reported spending on whole class,

Figure A. Percentage of children demonstrating specific reading knowledge and skills in the spring of kindergarten, by proficiency in recognizing letters at kindergarten entry: Spring 1999



#Rounds to zero.

SOURCE: Denton, K., and West, J. (2002). *Children's Reading and Mathematics Achievement in Kindergarten and First Grade* (NCES 2002-125), figure 5. (Previously published as figure 3 on p. 6 of the report from which this article is excerpted.) Data from U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Base Year Public-Use Data File (NCES 2001–029).

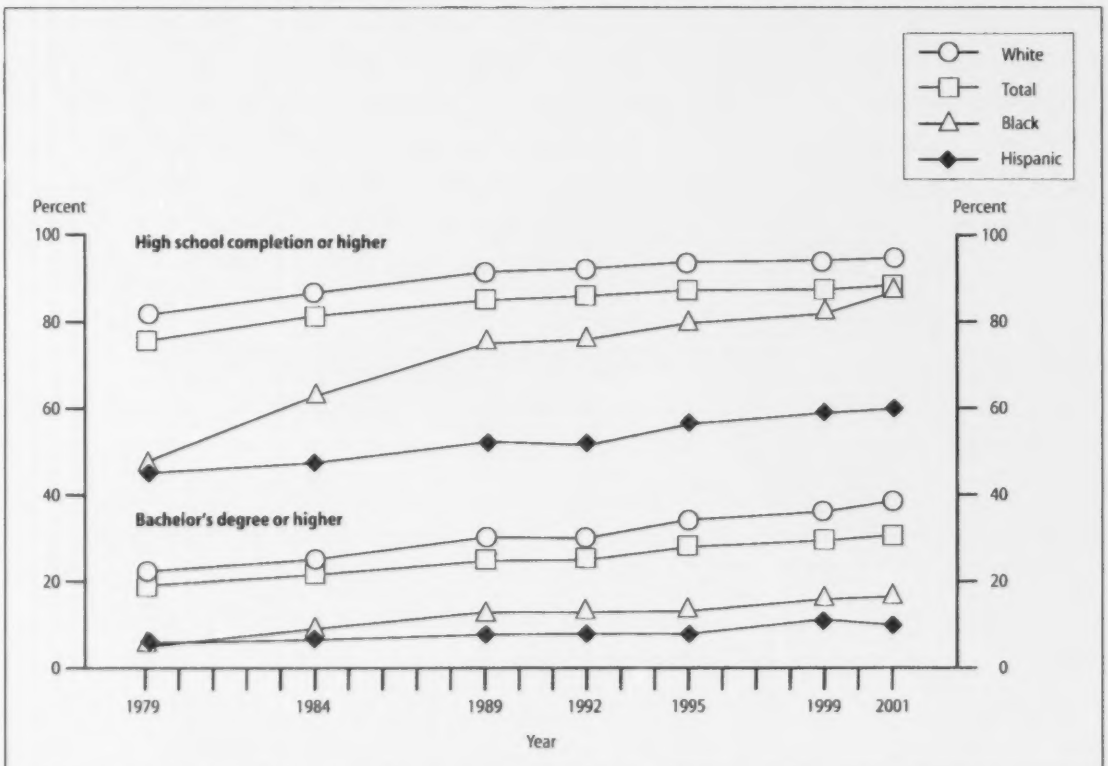
small group, and individual activities in 1998–99. Teachers in both types of programs reported devoting time each day to reading instruction. In both types of programs, teachers most frequently focused on teaching children to recognize the letters of the alphabet, followed by matching the letters to sounds and learning the conventions of print. However, the latter two skills were more likely to be taught daily in full-day than in half-day classes.

Participation in Education

As the U.S. population increases, so does its enrollment at all levels of education. At the elementary and secondary level, growth is due largely to demographic changes in the size of the school-age population. At the postsecondary level, both population growth and increasing enrollment rates help explain rising enrollments. Adult education is also increasing due to the influence of both demographic shifts in the age of the U.S. population and increasing rates of enrollment, as influenced by changing employer requirements for skills. As enrollments have risen, the cohorts of learners—of all ages—have become more diverse than ever before.

- Public elementary and secondary enrollment is projected to reach 47.9 million in 2005, decrease to 47.6 million in 2010, and then increase to 47.7 million in 2012. The West will experience the largest increase in enrollments of all regions in the country.
- Over the past 20 years, the education level of parents of school-aged children has increased, though the parents of Black and Hispanic children continue to have less education than their White peers (figure B). The percentages of Black and White children living in

Figure B. Percentage of 5- to 17-year-olds whose parents had at least completed high school or attained a bachelor's degree or higher, by race/ethnicity: Selected years 1979–2001



NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. In 1994, the survey methodology for the CPS was changed and weights were adjusted. Information on parents' educational attainment is available only for those parents who lived in the same household with their child. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified. Other race/ethnicities are included in the total but are not shown separately.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), March Supplement, various years, previously unpublished tabulation (January 2003). (Originally published as the Family Characteristics figure on p. 19 of the complete report from which this article is excerpted.)

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poverty in 2001 were smaller than the percentages in 1976, with Black children experiencing a larger decline.

- In 1999, 16 percent of all children ages 5–17 lived in households where the annual income in the previous year was below the poverty level. Compared with students in other types of communities, students in school districts in central cities were more likely to be poor, and students in the urban fringe or rural areas within metropolitan areas were less likely to be poor.
- The number of 5- to 24-year-olds who spoke a language other than English at home more than doubled between 1979 and 1999. In 1999, among these young people who spoke a language other than English at home, one-third spoke English with difficulty (i.e., less than "very well"). Spanish was the language most frequently spoken among those who spoke a language other than English at home.
- In a change from the enrollment patterns of the 1980s and 1990s, undergraduate enrollment in the current decade is projected to increase at a faster rate in 4-year institutions than in 2-year institutions. Women's undergraduate enrollment is expected to continue increasing at a faster rate than men's.
- Two percent of undergraduate students were foreign students with visas and 5 percent were foreign-born permanent residents, compared with 9 and 3 percent, respectively, of graduate and first-professional students in 1999–2000.
- Graduate and first-professional enrollment in degree-granting institutions increased from 1976 to 2000, with women's enrollment growing at a faster rate than men's. During this period, the percentage of female graduate students increased from 46 to 58 percent.
- The percentage of persons 16 and above participating in adult education—including basic skills instruction, apprenticeships, work-related courses, personal interest courses, English as a second language (ESL) classes, and college or university credential programs—increased from 1991 to 2001. Work-related courses and personal interest courses were the most popular forms of adult education in 2001.

Learner Outcomes

How well does the American educational system—and its students—perform? Data from national and international assessments can help answer this question, as can data on adult experiences later in life. In some areas, such as mathematics, geography, and U.S. history, the performance of elementary and secondary students has improved over the past decade, but not in all grades assessed. International assessments place the performance of U.S. students in perspective and assist policymakers, researchers, and the public in understanding how the performance of U.S. students compares with that of their peers in other countries.

- According to the Progress in International Reading Literacy Study (PIRLS), U.S. 4th-graders performed above the international average of 35 countries in reading literacy in 2001. Three countries had a higher average combined reading literacy scale score than the United States and 23 countries had a lower average score.
- U.S. 15-year-olds performed at the international average of 27 Organization for Economic Cooperation and Development (OECD) countries in reading literacy in 2000, scoring below the average of 3 countries (Canada, Finland, and New Zealand) and above the average of 4 OECD countries (Greece, Portugal, Luxembourg, and Mexico).
- The average mathematics scale scores of children who entered kindergarten in fall 1998 increased by 8 points by the end of kindergarten and by another 10 points (one standard deviation) by the end of 1st grade. Their average reading scale scores increased by 10 points in kindergarten and by 19 points in 1st grade. Differences in the average reading and mathematics skills of kindergartners by their mother's level of education persisted or increased throughout their kindergarten and 1st-grade years.
- The mathematics performance of 4th- and 8th-graders assessed by the National Assessment of Educational Progress (NAEP) increased steadily throughout the 1990s. The performance of 12th-graders increased between 1990 and 1996 but then declined through 2000. In 2000, 26 percent of 4th-graders, 27 percent of 8th-graders, and 17 percent of 12th-graders performed at or above the *Proficient* level for each grade, defined as "solid academic performance for each grade assessed."
- Students in high-poverty public schools—using the percentage of students eligible for free or reduced-price lunch as a measure of poverty—scored lower on the 4th-grade NAEP Mathematics Assessment than did students in low-poverty public schools in 2000.

- The performance of 4th- and 8th-graders on the NAEP Geography Assessments increased from 1994 to 2001, while no difference was found for 12th-graders. In 2001, 21 percent of 4th-graders, 30 percent of 8th-graders, and 25 percent of 12th-graders scored at or above the *Proficient* level defined as "solid academic performance for each grade assessed."
- The performance of 4th- and 8th-graders on the NAEP U.S. History Assessments improved from 1994 to 2001, while no difference was found for 12th-graders. Eighteen percent of 4th-graders, 17 percent of 8th-graders, and 11 percent of 12th-graders scored at or above the *Proficient* level in 2001.
- The more education people have, the more likely they are to vote in presidential and congressional elections. Thirty-eight percent of U.S. voting-age citizens who had not completed high school voted in 2000, compared with 77 percent of those with a bachelor's degree or higher.
- Fifty percent of U.S. students in grade 9 participated in a community-related volunteer organization in 1999, a higher percentage than in any of the 27 other countries participating in the Civic Education Study.

Student Effort and Educational Progress

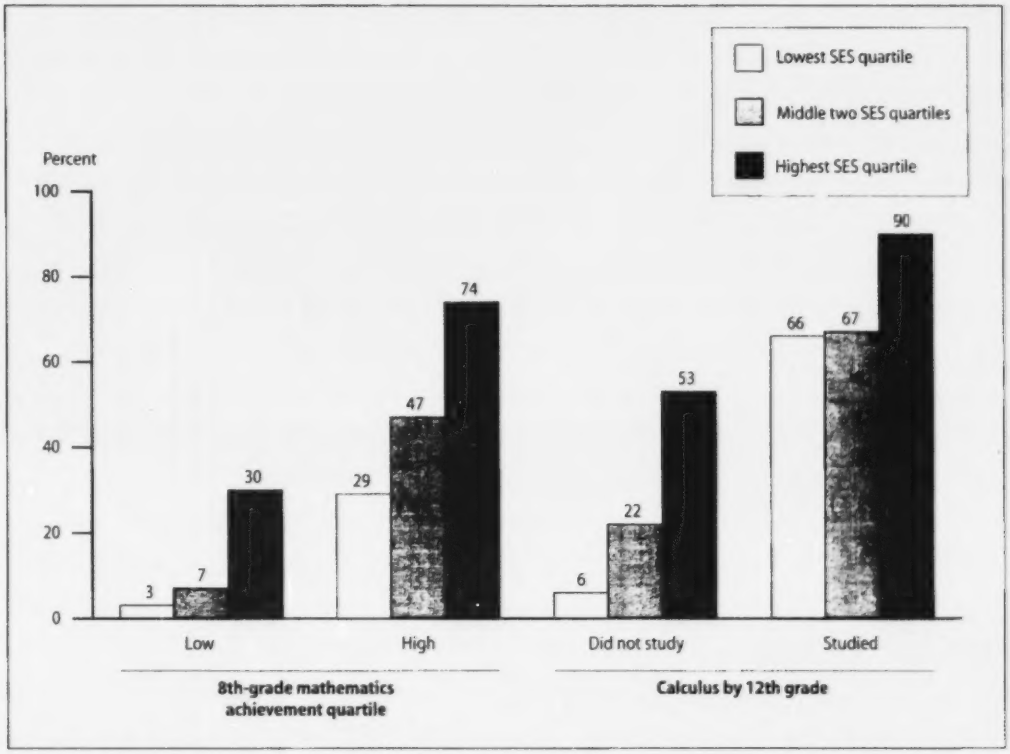
Many factors are associated with school success, persistence, and progress toward high school graduation or a college degree. These include student motivation and effort, the expectations and encouragement of others, learning opportunities, and financial assistance. Monitoring these factors in relation to the progress of different groups of students through the educational system and tracking their educational attainment are important to knowing how well we are doing as a nation in education.

- One indicator of the failure to persist in school is the "status dropout rate" (i.e., the percentage of young people who have not completed high school and are not enrolled in school). Since 1972, status dropout rates for Whites and Blacks ages 16–24 have declined, but they have remained relatively stable since the early 1990s. The rates for Hispanic youths have not decreased and remain higher than the rates for other racial/ethnic groups.
- Since 1983, immediate college enrollment rates have increased faster for Blacks than Whites, narrowing the gap between the two groups. During the 1980s and 1990s, White immediate college enrollment rates increased, but Hispanic rates remained stagnant, widening the gap between Hispanics and Whites.
- On average, first-time recipients of bachelor's degrees in 1999–2000 who did not leave college temporarily for 6 months or more took 55 months to complete a degree. Those who attended only one institution took less time on average (51 months) to complete a degree than those who attended multiple institutions.
- Among students who sought a bachelor's degree and began their postsecondary studies at a 4-year institution in 1995–96, just over half graduated from that institution within 6 years. Others in this group transferred and earned a degree elsewhere, making the cohort's 6-year rate of attaining a bachelor's degree higher (63 percent).
- The transfer rates of community college students are related to their initial degree goals. Among undergraduates starting at a public 2-year postsecondary institution in 1995–96, about one-half who intended to obtain a bachelor's degree and about one-fourth who sought an associate's degree transferred to a 4-year institution within 6 years.
- Postsecondary attainment rates vary with students' socioeconomic status, but rigorous academic preparation and achievement in school can partially compensate for disadvantaged backgrounds. Among students from low socioeconomic backgrounds (SES), those who studied calculus in high school were about 10 times more likely than those who did not to have completed a bachelor's degree or higher by 2000 (figure C). In contrast, among high SES students, those who completed calculus were 1.7 times as likely as those who did not to have completed a bachelor's degree or higher.
- Pell Grant recipients tend to start their postsecondary studies with more disadvantages than low- and middle-income nonrecipients. However, among 1995–96 beginning postsecondary students, no difference was found in the overall persistence rates of Pell recipients and nonrecipients after 6 years—that is, in the percentages of students who attained any degree or certificate or were still enrolled.

Contexts of Elementary and Secondary Education

Student performance in elementary and secondary schools is shaped by many factors in the school environment. These factors include the courses offered in the school and taken

Figure C. Percentage of 1988 8th-graders in selected categories who had completed at least a bachelor's degree by 2000, by family socioeconomic status



NOTE: The socioeconomic status (SES) variable has five equally weighted, standardized components: father's education, mother's education, family income, father's occupation, and mother's occupation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS: 88/2000), "Fourth Follow-up, 2000." (Originally published as the Student Attainment figure on p. 47 of the complete report from which this article is excerpted.)

by students, the instructional methods used by teachers, the options for learning available to students with special needs, and the climate for learning and discipline in the schools. Monitoring these and other factors provides better understanding of conditions in schools that shape student learning.

- The percentage of high school graduates who completed advanced academic levels of English (courses classified as "honors") and foreign language study (3 years or more) doubled between 1982 and 2000.
- Asians/Pacific Islanders were more likely to have completed advanced English courses than Hispanics and Blacks, and Whites more than Hispanics, but no other differences were detected. Asians/Pacific Islanders, Hispanics, and Whites were more likely to have completed advanced foreign language courses than Blacks and American Indians.
- According to findings from the 1999 Third International Mathematics and Science Study (TIMSS) Video Study, in 8th-grade mathematics lessons in the United States, students spend 53 percent of the time reviewing previously studied content and 48 percent of the time studying new content.
- Public alternative schools and programs serve students who are at risk of dropping out of school for various reasons, including poor grades, truancy, suspension, and pregnancy. In 2001, 39 percent of public school districts had alternative schools and programs, serving about 613,000 at-risk students. Public alternative schools were most common in school districts with large enrollments, in urban areas, and in the Southeast.
- In 1999–2000, students in middle grades were more likely than students in high schools to have out-of-field teachers—teachers who lack a major and certification

in the subject they teach. Out-of-field teachers taught a larger proportion of English students in the middle grades than in high school, as was also true for mathematics, science, and social science.

- In 1999–2000, private schools and schools with high minority enrollments were more likely to employ teachers with 3 or fewer years of teaching experience than were public schools and schools with low minority enrollments. Beginning teachers were evenly distributed across public and private schools by sex, however.
- In 1999–2000, the size of the student body at a typical high school varied by location. In urban areas, almost half of all high schools were large (900 or more students), whereas in rural areas, half of all high schools were very small (fewer than 300 students). A positive relationship exists between the size of regular schools and the percentage of teachers who reported that apathy, tardiness, absenteeism, dropping out, and drug use are "serious problems" in their school.
- Assault, theft, and other forms of victimization at school affect all types of students. However, in 1999, students who reported gangs or guns at their schools were more likely to report victimization than students who did not report these conditions.

Contexts of Postsecondary Education

The postsecondary education system encompasses various types of institutions, both public and private. Although issues of student access, persistence, and attainment have been predominant concerns in postsecondary education, the contexts in which postsecondary education takes place matter as well. The diversity of the undergraduate and graduate populations, the various educational missions and learning environments of colleges and universities, the courses that students take, the modes of learning that are employed, and the ways in which colleges and universities attract and use faculty and other resources all are important aspects of the context of postsecondary education.

- Undergraduates display considerable diversity in their demographic, enrollment, and employment characteristics. In 1999–2000, more than half of undergraduates were women, close to a third were other than White, and 43 percent were of nontraditional college age (24 years or older). Eighty percent were employed, including 39 percent who were employed full time.
- The number of associate's degrees awarded increased at a faster rate than the number of bachelor's degrees between 1990–91 and 2000–01. The number of associate's degrees awarded increased more during the first half of this period than in the latter half, while the number of bachelor's degrees awarded increased by 6 to 7 percent during each 5-year period.
- In 1999–2000, about 9 percent of undergraduates reported having a disability that created difficulties for them as a student: about half of these students attended public 2-year institutions, and another 26 percent attended public 4-year institutions. Among students with disabilities, 22 percent reported not receiving the services or accommodations they needed.
- The majority of postsecondary institutions had taken actions that affected faculty tenure as of 1998, and the proportion of recently hired faculty who were not on a tenure track increased from 1992 to 1998. These institutions offered early or phased retirement to full-time tenured faculty more often than they instituted more stringent standards for granting tenure or downsizing tenured faculty.

Societal Support for Learning

Society and its members—families, individuals, employers, and governmental and private organizations—provide support for education in various ways, such as spending time on learning activities, encouraging and supporting learning, and investing money in education. This support includes learning activities that take place outside schools and colleges in communities, workplaces, and other kinds of organizations, as well as the financial support of learning inside schools and colleges. Parents contribute to the education of their children in the home through encouraging them to learn and teaching them directly. Communities impart learning and values to their members through various kinds of formal and informal modes. Financial investments in education are made both by individuals in the form of income spent on their own education (or the education of their children) and by the public in the form of public appropriations for the education of the population. These investments in education are made at all levels of the education system. Other collective entities, such as employers and other kinds of organizations, also invest in various forms of education for their members.

- Children with richer home literacy environments demonstrated higher levels of reading skills and

knowledge when they entered kindergarten in 1998–99 than did children with less rich literacy environments. Children's home literacy environment varied by their poverty level, with poor children scoring lower than nonpoor children on a home literacy index.

- The percentage of poor and nonpoor children who participated in literacy activities with a family member increased between 1993 and 2001. Despite these increases, nonpoor children were more likely than poor children to engage frequently in certain literacy activities in 2001, such as being read to by a family member or being told a story.
- Fifty percent of children in kindergarten through 8th grade were enrolled in a variety of nonparental care arrangements after school in 2001 (figure D). Black children were more likely than White and Hispanic children to participate in nonparental care.
- Total expenditures per elementary/secondary student adjusted for inflation increased from $6,700 in 1991–92 to $8,100 in 1999–2000. The largest increases occurred in central cities of midsize metropolitan statistical areas and rural locations.
- School districts with the highest poverty levels received less local general revenues per student (revenues for any educational purpose) than districts with the lowest poverty levels in 1999–2000. State general revenues and federal and state categorical revenues (revenues for specific educational purposes) tend to compensate for these lower amounts.
- In 1999, public and private expenditures per student for the member countries of OECD averaged $4,850 at the combined elementary and secondary level and $9,210 at the postsecondary level. The United States and Switzerland, two of the world's wealthiest countries, ranked highest in expenditures per student at the elementary/secondary and postsecondary levels. Wealthy countries such as the United States spent more on education, but typically did not spend a higher percentage of their wealth on education than did less wealthy nations.
- Both average tuition and fees and the total price of attending college were higher for undergraduates in 1999–2000 than in 1992–93. The net price (total price minus grants), however, did not change for students in the lowest income quartile.
- The percentage of full-time undergraduates with federal loans, available to all undergraduates, increased between 1992–93 and 1999–2000. No change was observed in the percentage with federal grants, typically available only to low-income undergraduates.
- Among employed adults ages 25–64 who participated in adult education in 2001, 87 percent received employer financial support for work-related education. A higher percentage of employed adults received support for work-related education than for non-work-related education.

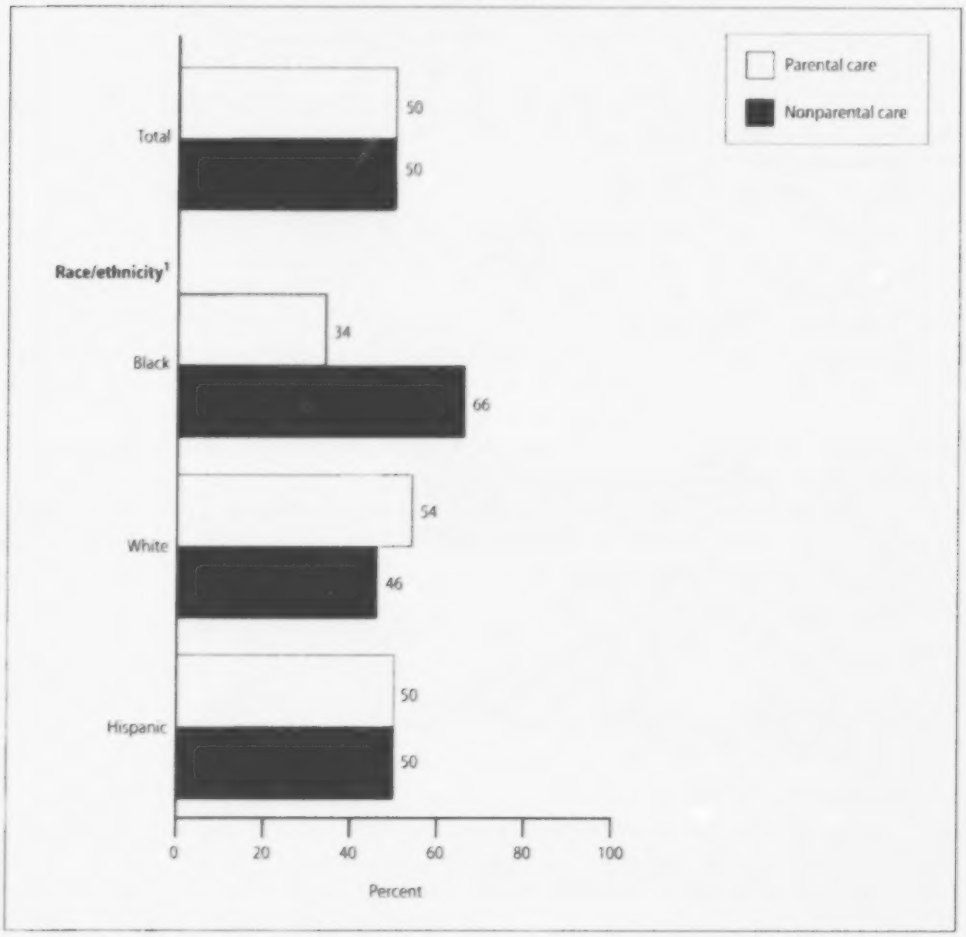
Conclusion

Trends in the condition of American education continue to show a mixed picture. In reading, U.S. 4th-graders outscored their counterparts in many other countries, and the percentage of high school graduates completing advanced-level courses in English has increased since the early 1980s. Yet the reading literacy scores of 15-year-olds in the United States were at the average among industrialized countries. In mathematics, the performance of 4th- and 8th-graders increased steadily throughout the 1990s, but the performance of 12th-graders increased in the early part of the decade and then declined. Only 17 percent of 12th-graders scored at or above the *Proficient* level. One-quarter of 12th-graders scored at or above the *Proficient* level in geography, and about 10 percent scored at this level in history.

The poverty level of students sets the social context for their progress and achievement in school. In the 4th, 8th, and 12th grades, the average mathematics scores of students decline as the percentage of students who receive free or reduced-price lunch in the school increases. The percentage of students from families below the poverty line is highest in central cities and lowest in the urban fringe or rural areas within metropolitan areas.

In the coming decade, total enrollments in elementary and secondary education are projected to remain at or near their current levels, and the trends toward greater diversity in the racial/ethnic composition of the population are expected to continue. The level of parental education has increased for all children in the past 20 years, potentially promoting higher student achievement and attainment in the years ahead. During the past two decades, the number of language-minority students has grown, with a doubling of the percentage of 5- to 24-year-olds who speak a language other than English in the home.

Figure D. Percentage of children in kindergarten through 8th grade who participated in parental and nonparental care arrangements after school, by race/ethnicity: 2001



[1]Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic unless specified.

NOTE: Includes children participating in regularly scheduled care arrangements after school that occur at least once monthly, with the exception of extracurricular activities, which are scheduled at least once weekly. There are two types of extracurricular activities: those selected for the purpose of providing children with adult supervision and those that children join because of personal interest and enjoyment. The activities selected for supervisory purposes are considered to be a nonparental care arrangement. Home-schooled children have been excluded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Before- and After-School Programs and Activities Survey of the National Household Education Surveys Program (ASPA–NHES:2001). (Originally published as the Care Arrangements for Children After School figure on p. 76 of the complete report from which this article is excerpted.)

In contrast to enrollments in elementary and secondary education, postsecondary enrollments are projected to increase in the next decade. At the undergraduate and graduate levels, enrollments have grown faster among women than men in recent years: 56 percent of undergraduate students and 58 percent of graduate students were women in 2000. The students who attend U.S. postsecondary institutions are changing in other ways, too. Close to one-third of undergraduates are other than White, and 43 percent are age 24 or older. Eleven percent of undergraduate students are foreign born.

Paralleling the growth in postsecondary education, participation in adult education has increased as well. Most adults who participate in adult education receive various forms of support from their employers.

NCES produces an array of reports each month that present findings about the U.S. education system. *The Condition of Education* is the culmination of a yearlong project. It includes data that were available by early April 2003. In the coming months, many other reports and surveys informing us about education will be released, including student assessments of elementary and secondary reading, writing, and mathematics; the baseline year of a new longitudinal study of high school students; and reports on schools and teachers with state-by-state information. As with the indicators in this volume, these surveys and reports will continue to inform Americans about the condition of education.

Data sources: Many studies from NCES and other sources.

For technical information, see the complete report:

National Center for Education Statistics. (2003). *The Condition of Education 2003* (NCES 2003–067).

For questions about content, contact John Wirt (john.wirt@ed.gov).

To obtain the complete report (NCES 2003–067), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

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Digest of Education Statistics 2002

Thomas D. Snyder and Charlene M. Hoffman

This article was excerpted from the Foreword and Introduction to the Compendium of the same name. The sample survey and universe data are from numerous sources, both government and private, and draw especially on the results of surveys and activities carried out by NCES.

The 2002 edition of the *Digest of Education Statistics*, produced by the National Center for Education Statistics (NCES), is the 38th in a series of publications initiated in 1962. (The *Digest* has been issued annually except for combined editions for the years 1977–78, 1983–84, and 1985–86.) Its primary purpose is to provide a compilation of statistical information covering the broad field of American education from prekindergarten through graduate school.

The publication contains information on a variety of subjects in the field of education statistics, including the number of schools and colleges, teachers, enrollments, and graduates, in addition to educational attainment, finances, federal funds for education, libraries, and international education. Supplemental information on population trends, attitudes on education, education characteristics of the labor force, government finances, and economic trends provides background for evaluating education data.

In addition to updating many of the statistics that have appeared in previous years, this edition contains a significant amount of new material, including

- average salary for full-time public school teachers, by highest degree and years of experience;
- number and characteristics of public charter schools;
- total and current expenditures per student, by function and state;
- revenue of private for-profit degree-granting institutions, by source;
- expenditures of private for-profit degree-granting institutions, by purpose;
- civics knowledge and engagement of 14-year-old students, by country;
- average reading, mathematics, and science literacy scores of 15-year-olds, by country;
- distribution of 15-year-olds at reading literacy proficiency levels, by country; and
- use of the Internet by persons age 3 and over, by population characteristics.

Participation in Formal Education

In the fall of 2002, about 69.2 million persons were enrolled in American schools and colleges (table A). About 4.3 million were employed as elementary and secondary school teachers and as college faculty. Other professional, administrative, and support staff of educational institutions numbered 4.8 million. Thus about 78.3 million people were involved, directly or indirectly, in providing or receiving formal education. In a nation with a population of about 288 million, more than 1 out of every 4 persons participated in formal education. All data for 2002 in this article are projected.

Elementary/Secondary Education

Enrollment

Enrollment in public elementary and secondary schools rose 21 percent between 1985 and 2002. The fastest public school growth occurred in the elementary grades (prekindergarten through grade 8), where enrollment rose 25 percent over the same period, from 27.0 million to 33.8 million. Private school enrollment grew more slowly than public school enrollment over this period, rising 7 percent, from 5.6 million in 1985 to 6.0 million in 2002. As a result, the proportion of students enrolled in private schools declined slightly, from 12 percent in 1985 to 11 percent in 2002.

Since the enrollment rates of kindergarten and elementary school-age children have not changed much in recent years, increases in public and private elementary school enrollment have been driven primarily by increases in the number of children in this age group. Public secondary school enrollment declined 8 percent from 1985 to 1990, but then rose 22 percent from 1990 to 2002, for a net increase of 12 percent.

NCES forecasts record levels of total elementary and secondary enrollment for the next several years as the school-age population crests. The projected fall 2002 public school enrollment marks a new record, and new records are expected every year through 2005. Public elementary school enrollment is projected to decline slowly until the later part of the decade and then increase, so that the fall 2012 projection is slightly lower than the 2002 enrollment.

Table A. Projected number of participants in educational institutions, by level and control of institution: Fall 2002

[In millions]

Participants	All levels (elementary, secondary, and degree-granting)	Elementary and secondary schools			Degree-granting institutions		
		Total	Public	Private	Total	Public	Private
Total	78.3	60.3	53.7	6.6	18.0	13.6	4.4
Enrollment	69.2	53.6	47.6	6.0	15.6	12.0	3.6
Teachers and faculty	4.3	3.5	3.1	0.4	0.8	0.5	0.2
Other professional, administrative, and support staff	4.8	3.2	2.9	0.3	1.6	1.1	0.5

NOTE: Enrollment data include students in local public school systems and in most private schools (religiously affiliated and nonsectarian). The data exclude students in subcollegiate departments of postsecondary institutions and federal schools. Elementary and secondary enrollment includes most kindergarten and some nursery school enrollment, but excludes preprimary enrollment in schools that do not offer first grade or above. Enrollment data for degree-granting institutions include full-time and part-time students enrolled in degree-credit and non-degree-credit programs in universities, other 4-year colleges, and 2-year colleges that participated in Title IV federal financial aid programs. Data for teachers and other staff in public and private elementary and secondary schools and colleges and universities are reported in terms of full-time equivalents. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, unpublished projections and estimates. (This table was prepared August 2002.)
(Onginally published as table 1 on p. 11 of the complete report from which this article is excerpted.)

In contrast, public secondary school enrollment is expected to increase 2 percent between 2002 and 2012.

Teachers

A projected 3.5 million elementary and secondary school teachers were engaged in classroom instruction in the fall of 2002. This number has risen in recent years, up about 27 percent since 1990. The number of public school teachers in 2002 was 3.1 million, and the number of private school teachers was about 0.4 million.

The number of public school teachers has risen slightly faster than the number of students over the past 10 years, resulting in small declines in the pupil/teacher ratio. In the fall of 2001, there were an estimated 15.9 public school pupils per teacher, compared with 17.3 public school pupils per teacher 10 years earlier. Over the same period, the pupil/teacher ratio in private schools increased from 14.9 to 15.2. Data from the last half of the 1990s show a continuation of the historical trend toward lower public school pupil/teacher ratios, which had been stable during the late 1980s and early 1990s.

The salaries of public school teachers, which lost purchasing power to inflation during the 1970s, rose faster than the inflation rate in the 1980s. Since 1990–91, salaries for teachers have generally maintained pace with inflation. The average salary for teachers in 2001–02 was $44,604, about 2 percent higher than in 1991–92, after adjustment for inflation.

Student performance

Most of the student performance data in the *Digest* are drawn from the National Assessment of Educational Progress (NAEP). The NAEP assessments have been conducted using three basic designs. The main NAEP reports current information for the nation and specific geographic regions of the country. It includes students drawn from both public and nonpublic schools and reports results for student achievement at grades 4, 8, and 12. The main NAEP assessments follow the frameworks developed by the National Assessment Governing Board and use the latest advances in assessment methodology.

Since 1990, NAEP assessments have also been conducted at the state level. States that choose to participate receive assessment results that report on the performance of students in that state. In its content, the state assessment is identical to the assessment conducted nationally. However, because the national NAEP samples prior to 2002 were not designed to support the reporting of accurate and representative state-level results, separate representative samples of students were selected for each participating jurisdiction/state and additional students needed to yield national estimates were selected from nonparticipating states.

NAEP long-term trend assessments are designed to give information on changes in the basic achievement of America's youth since the early 1970s. They are administered nationally and report student performance at ages 9, 13, and 17 and in grades 4, 8, and 11 in writing. Measuring trends of student achievement or change over time requires

the precise replication of past procedures. Therefore, the long-term trend instrument does not evolve based on changes in curricula or in educational practices.

Reading. Overall achievement scores on the long-term trend reading assessment for the country's 9-, 13-, and 17-year-old students are mixed. Reading performance scores for 9- and 13-year-olds were higher in 1999 than they were in 1971. However, there were no detectable differences between their 1999 and 1984 scores. There was no detectable difference in the reading performance of 17-year-olds in 1999 compared to 1971.

Black 9-, 13-, and 17-year-olds exhibited higher reading performance in 1999 than in 1971. However, performance for all three age groups in 1999 was not significantly different from that in 1984. The performance levels of White 9- and 13-year-olds also rose between 1971 and 1999. Separate data for Hispanics were not gathered in 1971, but changes between 1975 and 1999 indicate an increase in performance among 9-, 13-, and 17-year-olds. There was no significant difference between the 1984 and 1999 reading performance of 9-, 13-, and 17-year-old Hispanics.

Mathematics. Results from assessments of mathematics proficiency indicate that scores of 9-, 13-, and 17-year-old students were higher in 1999 than in 1973. No difference was detected between the scores in 1994 and 1999. This pattern was similar for White, Black, and Hispanic students.

A NAEP assessment of states in 2000 found that mathematics proficiency varied widely among eighth-graders in the 44 participating jurisdictions (39 states, American Samoa, Guam, Department of Defense overseas and domestic schools, and the District of Columbia). Overall, 65 percent of these eighth-grade students performed at or above the *Basic* level in mathematics, and 26 percent performed at or above the *Proficient* level.[1] Only four jurisdictions (one state, the District of Columbia, American Samoa, and Guam) had significantly fewer than 50 percent of students performing at least at the *Basic* level in math.

Science. Long-term changes in science performance have been mixed, though scores over the past 10 years have been stable for two out of the three age groups. In 1999, science performance among 17-year-olds was lower than in 1969, but higher than in 1990. No difference was detected between the science performance of 13-year-olds in 1999 compared to 1970 or 1990. The science performance of 9-year-olds increased between 1970 and 1999, but there was no significant difference between 1990 and 1999.

International comparisons. The 1999 Third International Mathematics and Science Study (TIMSS 1999[2]), which was conducted 4 years after the original TIMSS, focuses on the mathematics and science achievement of eighth-graders in 38 countries. In TIMSS 1999, the international average score of the 38 participating countries was 487 in mathematics and 488 in science. In 1999, U.S. eighth-graders, on average, scored higher in both mathematics and science than the international average of the 38 countries. In mathematics, the average U.S. score was higher than the score in 17 countries, no different from the score in 6 countries, and lower than the score in 14 countries. In science, the average U.S. score was higher than the score in 18 countries, no different from the score in 5 countries, and lower than the score in 14 countries.

Postsecondary Education

College enrollment

College enrollment hit a record level of 15.3 million in fall 2000 and another record of 15.6 million in 2002. College enrollment is expected to increase by an additional 13 percent between 2002 and 2012. Despite decreases in the traditional college-age population during the 1980s and early 1990s, total enrollment increased during this period because of the high enrollment rate of older women and recent high school graduates. Between 1990 and 2000, the number of full-time students increased by 15 percent compared to a 5 percent increase in part-time students.

Faculty and staff

In the fall of 1999, there were 1,028,000 faculty members in degree-granting institutions. Making up this figure were 591,000 full-time and 437,000 part-time faculty. In 1998, full-time instructional faculty and staff generally taught more hours and more students than part-time instructors, with 21 percent of full-time instructors teaching 15 or more hours per week and 13 percent teaching 150 or more students. About 9 percent of part-time instructors taught 15 or more hours per week, and 4 percent taught 150 or more students.

[1] The NAEP achievement levels are set by the National Assessment Governing Board. The *Basic* level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work, while the *Proficient* level represents solid academic performance.

[2] In earlier reports, TIMSS 1999 is also referred to as TIMSS-R (TIMSS–Repeat).

Graduates, Degrees, and Attainment

The estimated number of high school graduates in 2001–02 totaled 2.9 million. Approximately 2.6 million graduated from public schools, and 0.3 million graduated from private schools. The number of high school graduates has declined from its peak in 1976–77, when 3.2 million students earned diplomas. In contrast, the number of General Educational Development (GED) credentials issued rose from 332,000 in 1977 to 648,000 in 2001. The dropout rate also declined over this period, from 14 percent of all 16- to 24-year-olds in 1977 to 11 percent in 2001. The number of postsecondary degrees conferred during the 2001–02 school year by degree level has been projected: 619,000 associate's degrees; 1,282,000 bachelor's degrees; 468,000 master's degrees; 80,800 first-professional degrees; and 44,900 doctor's degrees.

The U.S. Census Bureau collects annual statistics on the educational attainment of the population. Between 1990 and 2001, the proportion of the adult population 25 years of age and over who had completed high school rose from 78 percent to 84 percent, and the proportion of adults with a bachelor's degree increased from 21 percent to 26 percent. Over the same period, the proportion of young adults (25- to 29-year-olds) completing high school showed a small increase of about 2 percentage points, to 88 percent in 2001, and the proportion completing bachelor's degrees rose from 23 percent to 29 percent.

Education Expenditures

Expenditures for public and private education, from kindergarten through graduate school (excluding post-secondary schools not awarding associate's or higher degrees), are estimated at $745 billion for 2001–02. The expenditures of elementary and secondary schools are expected to total $454 billion for 2001–02, while those of colleges and universities are expected to total $291 billion. The total expenditures for education are expected to amount to 7.4 percent of the gross domestic product in 2001–02, about the same percentage as in the recent past.

Data sources: Many sources of data, including most NCES studies.

For technical information, see the complete report:

Snyder, T.D., and Hoffman, C.M. (2003). *Digest of Education Statistics 2002* (NCES 2003–060).

Author affiliations: T.D. Snyder and C.M. Hoffman, NCES.

For questions about content, contact Thomas D. Snyder (tom.snyder@ed.gov).

To obtain the complete report (NCES 2003–060), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Status and Trends in the Education of Hispanics

Charmaine Llagas

This article was originally published as the Highlights and Introduction of the Statistical Analysis Report of the same name. The universe and sample survey data come from NCES as well as from other federal agencies and organizations.

Introduction

The Hispanic population in the United States is growing rapidly and will soon become the largest minority group, surpassing the Black population by 2005. Hispanics have made gains in several key education areas in the past 20 years, but despite these gains, gaps in academic performance between Hispanic and non-Hispanic White students remain.

Status and Trends in the Education of Hispanics examines the current condition and recent trends in the educational status of Hispanics in the United States. The report presents a selection of indicators that illustrate the educational gains made in recent years, as well as the many gaps that still exist. These indicators are examined in four major sections: Demographic Overview; Preprimary, Elementary, and Secondary Education; Postsecondary Education; and Outcomes of Education. The report draws on the many statistics published by the National Center for Education Statistics (NCES) as well as data from other federal agencies and organizations.

Highlights

The report's highlights are as follows:

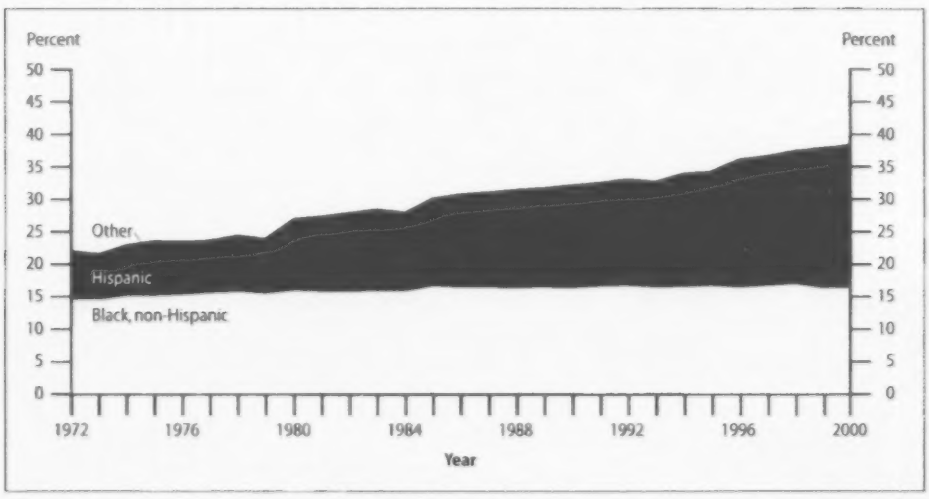
Demographic overview

- The Hispanic population is younger, on average, than the population overall.

Preprimary, elementary, and secondary education

- Much of the recent rise in minority enrollment in elementary and secondary schools may be attributed to the growth in the number of Hispanic students (figure A).

Figure A. Percent of public school students enrolled in grades K–12 who were minorities, by race/ethnicity: 1972–2000



SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education, 2002*, based on U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys, 1972–2000. (Originally published on p. 27 of the complete report from which this article is excerpted.)

- Hispanic students have retention and suspension/expulsion rates that are higher than those of Whites, but lower than those of Blacks.
- Hispanic students have higher high school dropout rates (figure B) and lower high school completion rates than White or Black students.
- Hispanic students had higher National Assessment of Educational Progress (NAEP) reading, mathematics, and science scores in 1999 than in the 1970s, though their NAEP performance remains lower than that of White students.
- In 1998, Hispanic high school graduates earned more credits than did 1982 graduates, especially in academic subjects. They also narrowed the gap with Whites in academic credits earned.
- Hispanic students are more likely than White and Black students to complete advanced foreign language classes.
- More Hispanic students than in previous years are taking Advanced Placement (AP) examinations.
- Over one-half of Hispanic students speak mostly English at home.
- The birth rates of Hispanic females ages 15 to 19 are higher than those of females from other racial/ethnic groups.

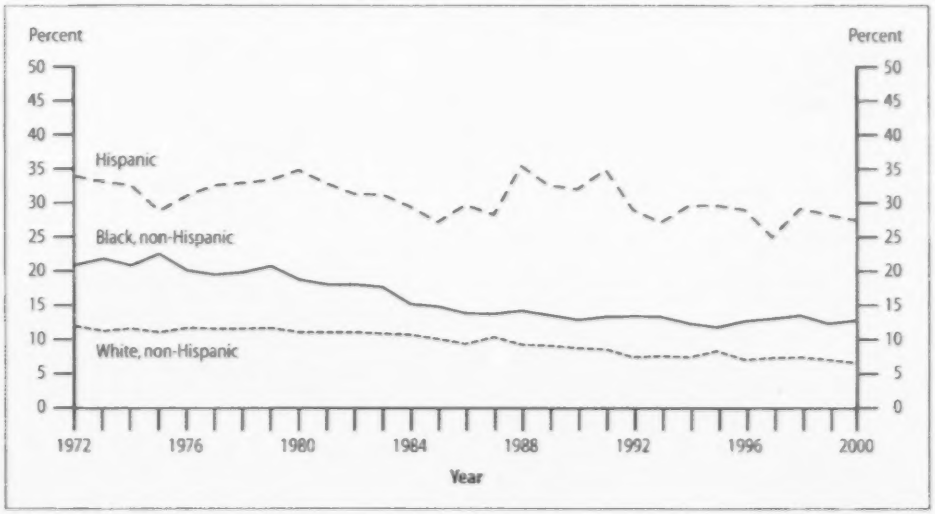
Postsecondary education

- Hispanic enrollments in colleges and universities increased between 1980 and 2000, although a smaller proportion of Hispanics completed college compared to Whites and Blacks (table A).
- In the 1999–2000 school year, the most popular fields of study in which Hispanics earned bachelor's degrees were business, social sciences/history, psychology, and education.
- About two out of five Hispanics 17 years old and over participate in adult education.

Outcomes of education

- There is a positive relationship between education and salary for all racial/ethnic groups, but the incomes of Hispanic men are lower than those of White men at most educational levels.

Figure B. Percent of 16- to 24-year-olds who were high school dropouts, by race/ethnicity: 1972–2000



NOTE: The data presented here represent the status dropout rate, which is the percentage of 16- to 24-year-olds who are out of school and who have not earned a high school credential. Another way of calculating dropout rates is the event dropout rate, which is the percentage of 15- to 24-year-olds who dropped out of grades 10 through 12 in the 12 months preceding the fall of each data collection year. Event dropout rates are not presented here.

SOURCE: P. Kaufman, M.N. Alt, and C.D. Chapman, *Dropout Rates in the United States: 2000*, based on U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys, 1972–2000. (Originally published on p. 41 of the complete report from which this article is excerpted.)

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Table A. Percentage distribution of enrollment in colleges and universities, by race/ethnicity: 1980 and 2000

	1980			2000		
Race/ethnicity	Total	2-year	4-year	Total	2-year	4-year
Total	100	100	100	100	100	100
White, non-Hispanic	81	79	83	68	64	71
Black, non-Hispanic	9	10	8	11	12	11
Hispanic	4	6	3	10	14	7
Asian/Pacific Islander	2	3	2	6	7	6
American Indian/Alaska Native	1	1	0	1	1	1
Nonresident alien	3	1	3	3	1	5

NOTE: Includes 2-year and 4-year degree-granting institutions that were participating in Title IV federal financial aid programs. Detail may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 2002*, based on the Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities Survey," 1980–81, and 2000–01 Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:2000). (Originally published on p. 97 of the complete report from which this article is excerpted.)

Data sources:

NCES: Various publications, such as *The Condition of Education* and *Digest of Education Statistics*.

Other: U.S. Department of Commerce, Bureau of the Census; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration; U.S. Department of Labor, Bureau of Labor Statistics; College Entrance Examination Board; American College Testing Program (ACT).

For technical information, see the complete report:

Llagas, C. (2003). *Status and Trends in the Education of Hispanics* (NCES 2003–008).

Author affiliation: C. Llagas, American Institutes for Research.

For questions about content, contact Thomas D. Snyder (thomas.snyder@ed.gov).

To obtain the complete report (NCES 2003–008), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data Products, Other Publications, and Funding Opportunities

Data Products

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Data Products

Data File: CCD Public Elementary/Secondary School Universe Survey: School Year 2001–02

Part of the NCES Common Core of Data (CCD), the "Public Elementary/Secondary School Universe Survey" has two primary purposes: (1) to provide a complete listing of all public elementary and secondary schools located in the 50 states, District of Columbia, and five outlying areas, or operated by the Department of Defense or Bureau of Indian Affairs; and (2) to provide basic information and descriptive statistics on all schools, their students, and their teachers. Data are provided annually by state education agencies (SEAs) from their administrative records. The 2001–02 data set contains 97,623 records, one for each of the listed schools.

The following information is included for each school: NCES and state school ID numbers; name of the agency that operates the school; name, address, and phone number of the school; school type (regular, special education, vocational education, or alternative); operational status (open, closed, new, added, or changed agency); locale code; latitude and longitude; full-time-equivalent classroom teacher count; low/high grade span offered; school level; Title I and schoolwide Title I eligibility status; magnet school and charter school status (yes or no); free lunch–eligible, reduced-price lunch–eligible, and total free and reduced-price lunch–eligible students; migrant students enrolled in previous year; student totals and detail (by grade, race/ethnicity, and gender); and pupil/teacher ratio.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Beth Aronstamm Young (beth.young@ed.gov).

To obtain this data product (NCES 2003–357), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD Local Education Agency Universe Survey: School Year 2001–02

The Common Core of Data (CCD) "Local Education Agency Universe Survey" is one of the surveys that make up the CCD collection of surveys. This survey provides (1) a complete listing of every education agency in the United States responsible for providing free public elementary/secondary instruction or education support services; and (2) basic information about all education agencies and the students for whose education the agencies are responsible. Most of the agencies listed are school districts or other local education agencies (LEAs). The data are provided annually by state education agencies (SEAs) from their administrative records. The 2001–02 data set contains 17,276 records, one for each public elementary/secondary education agency in the 50 states, District of Columbia, five outlying areas, Department of Defense, and Bureau of Indian Affairs.

The data file includes the following information for each listed agency: NCES and state agency ID numbers; agency name, address, and phone number; agency type code; supervisory union number; county name; FIPS county code; metropolitan statistical area and metropolitan status codes; district locale code; operational status code; low/high grade span offered; number of ungraded students; number of PK–12 students; numbe of migrant students served in special programs; number of special education/Individualized Education Program students; instructional staff fields; support staff fields; number of limited-English-proficient students; and number of diploma recipients and other high school completers (by race/ethnicity and gender). Dropout counts by grade, race/ethnicity, and gender are published separately from the rest of the data.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Beth Aronstamm Young (beth.young@ed.gov).

To obtain this data product (NCES 2003–356), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD State Nonfiscal Survey of Public Elementary/Secondary Education: School Year 2001–02

The "State Nonfiscal Survey of Public Elementary/Secondary Education" is part of the Common Core of Data (CCD) collection of surveys. This survey provides public elementary and secondary student, staff, and graduate counts for the 50 states, District of Columbia, five outlying areas, Bureau of Indian Affairs schools, and U.S. Department of Defense dependents (domestic and overseas) schools. The data are provided annually

by state education agencies (SEAs) from their administrative records. The 2001–02 data set contains 59 records, one for each reporting state or jurisdiction.

For each state or jurisdiction, the data file includes the following information: name, address, and phone number of the SEA; number of teachers, by level; number of other staff, by occupational category; number of students, by grade and ungraded, as well as by race/ethnicity (five racial/ethnic categories); and number of high school completers (for school year 2000–01), by type of completion (diploma, high school equivalency, or other completion) and by race/ethnicity.

The data can be downloaded from the NCES web site either as an Excel file or as a flat file that can be used with statistical processing programs such as SPSS or SAS. Documentation is provided in separate files.

For questions about this data product, contact Beth Aronstamm Young (beth.young@ed.gov).

To obtain this data product (NCES 2003–359), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD National Public Education Financial Survey: Fiscal Year 2001

The Common Core of Data (CCD) "National Public Education Financial Survey" (NPEFS) provides detailed state-level data on public elementary and secondary education finances. Financial data are audited at the end of each fiscal year and then submitted to NCES by the state education agencies (SEAs) from their administrative records. This file provides data for fiscal year 2001 (school year 2000–2001). The data set contains 55 records, one for each of the 50 states, the District of Columbia, and four of the outlying areas (American Samoa, the Northern Marianas, Puerto Rico, and the Virgin Islands). (Guam did not report any data.)

For each state or jurisdiction, the data file includes revenues by source (local, intermediate, state, and federal); local revenues by type (e.g., local property taxes); current expenditures by function (instruction, support, and noninstruction) and by object (e.g., teacher salaries or food service supplies); capital expenditures (e.g., school construction and instructional equipment); average number of students in daily attendance; and total number of students enrolled.

The data can be downloaded from the NCES Electronic Catalog either as an Excel file or as a flat file that can be used with statistical processing programs, such as SPSS or SAS. Documentation is provided in separate files.

For questions about this data product, contact Frank H. Johnson (frank.johnson@ed.gov).

To obtain this data product (NCES 2003–361), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

National Student Service-Learning and Community Service Survey (FRSS 71): Public-Use Data Files

This file contains data from the 1999 survey, "National Student Service-Learning and Community Service Survey," conducted through the NCES Fast Response Survey System (FRSS). The sample of public schools for this survey was selected from the 1996–1997 Common Core of Data (CCD) public school universe file. Over 79,000 regular schools were included in the CCD universe file, of which 49,000 were elementary schools, 15,000 were middle schools, and 16,000 were high schools or schools with combined elementary/secondary grades. For this survey, elementary, middle, and high schools (including combined schools) were selected.

The survey was sent to principals at elementary and secondary public schools, who passed it along to the school official most knowledgeable about the types of programs in question. Survey questions covered rates of student participation in the school's community service and service-learning programs, the presence of school policies requiring participation in these programs and the reasons schools encourage involvement in them, the level of integration of service learning into the curriculum, program staffing, types of service learning available to students, the availability of support and professional development for teachers, the presence of service-learning project evaluation measures, and sources of funding for the programs.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Bernard Greene (bernard.greene@ed.gov).

To obtain this data product (NCES 2003–074), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

District Survey of Alternative Schools and Programs (FRSS 76): Public-Use Data Files

The 2001 "District Survey of Alternative Schools and Programs," conducted by NCES through its Fast Response Survey System (FRSS), is the first national study of public alternative schools and programs for students at risk of educational failure to provide data on topics related to the availability of public alternative schools and programs, enrollment, staffing, and services for these students. The survey was completed by the district-level personnel most knowledgeable about alternative schools and programs. Questions covered location of programs, enrollment, procedures for handling exceeded capacity, exit and entry policies and procedures, staffing, curriculum and services offered, and district background information.

This data file can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Bernard Greene (bernard.greene@ed.gov).

To obtain this data product (NCES 2003–053), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Internet Access in Public Schools, Fall 1999 (FRSS 75) and Fall 2000 (FRSS 79): Public-Use Data Files

These files contain data from the 1999 and 2000 administrations of "Internet Access in U.S. Public Schools," conducted through the NCES Fast Response Survey System (FRSS). The surveys were completed by school officials at elementary and secondary public schools. These officials were asked about Internet access and other information technology resources at their schools. Questions covered availability of computers, school- and classroom-level Internet access, whether or not particular groups within the school (i.e., administrative staff, teachers, students, disabled students) were able to access the Internet, number of computers on site, speed of Internet connection, sources of technology funding, and school personnel for advanced telecommunications support.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about these data products, contact Bernard Greene (bernard.greene@ed.gov).

To obtain either the 1999 data product (NCES 2003–041) or the 2000 data product (NCES 2003–039), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Advanced Telecommunications in U.S. Private Schools, 1998–1999 (FRSS 68): Public-Use Data Files

This file contains data from "Advanced Telecommunications in U.S. Private Schools, 1998–1999," a survey conducted through the NCES Fast Response Survey System (FRSS). The survey was completed by school officials at private elementary and secondary schools. These officials were asked about Internet access and other information technology resources at their schools. The survey focused on computer and Internet availability, including the extent to which those resources were available for instruction; selected issues in the use of computers and the Internet, including instructional use of those resources, provision of teacher training, technical support for advanced telecommunications use, and barriers to the acquisition and use of advanced telecommunications; and various means of external support for advanced telecommunications.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Bernard Greene (bernard.greene@ed.gov).

To obtain this data product (NCES 2003–054), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Condition of Public School Facilities, 1999 (FRSS 73): Public-Use Data Files

This file contains data from the 1999 survey "Condition of Public School Facilities," conducted through the NCES Fast Response Survey System (FRSS). The survey sample consisted of 1,004 regular public elementary, middle, and high schools in the 50 states and the District of Columbia. The sample was selected from the 1996–97 NCES Common Core of Data (CCD) Public School Universe File. Included in the FRSS data file is information on the pervasiveness of air conditioning; the number of temporary classrooms; the number of days particular public schools were closed for repairs; planned construction, repairs, and additions; long-range facilities plans; the age of public schools; overcrowding and practices used to address overcrowding; estimated costs for bringing facilities to a satisfactory condition; and the overall condition of roofs, floors, walls, plumbing, heating, electric facilities, and safety features.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Bernard Greene (bernard.greene@ed.gov).

To obtain this data product (NCES 2003–037), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Occupational Programs and the Use of Skill Competencies at the Secondary and Postsecondary Levels, 1999 (FRSS 72 and PEQIS 11): Public-Use Data Files

Data from two 1999 surveys—the "Survey on Vocational Programs in Secondary Schools," conducted through the NCES Fast Response Survey System (FRSS), and the "Survey on Occupational Programs in Postsecondary Education Institutions," conducted through the NCES Postsecondary Education Quick Information System (PEQIS)—were collected to provide the U.S. Department of Education's Office of Vocational and Adult Education (OVAE) with national estimates on occupational activities. The FRSS survey was administered to public secondary schools that include grades 11 and 12, and respondents were asked about program activities for 28 selected occupations within 6 broad occupational areas. The PEQIS survey was administered to less-than-4-year postsecondary institutions, and respondents were asked to report on program activities for 32 selected occupations in the same 6 occupational areas. Survey findings are presented by school type (comprehensive, vocational) for the FRSS survey, and by level of institution (2-year, less-than-2-year) for the PEQIS survey.

These data files contain information on vocational and occupational programs at the secondary and postsecondary levels, including the availability of programs in a large variety of occupational areas, procedures used to ensure courses teach relevant job skills, the prevalence of skill competency lists, the level of industry/educator partnership in developing skill competency lists, and the types of credentials available through the programs.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Bernard Greene (bernard.greene@ed.gov).

To obtain this data product (NCES 2003–038), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Distance Education at Postsecondary Education Institutions, 1997–98 (PEQIS 9): Public-Use Data Files

This file contains data from the 1997–98 survey, "Distance Education at Postsecondary Education Institutions," conducted through the NCES Postsecondary Education Quick Information System (PEQIS). The survey was completed by the administrators at postsecondary education institutions most knowledgeable about the institutions' technology and distance education programs. These administrators were asked about distance education programs and technology used at their institutions. Questions covered the number of distance education courses and enrollments both overall and within specific disciplines; availability of degree, certificate, and graduate programs; differences in tuition and fees for distance education and regular courses; technology used to deliver distance education courses; and future plans for

distance education, especially concerning the type of technology to be used.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Bernard Greene (bernard.greene@ed.gov).

To obtain this data product (NCES 2003–051), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File, Public-Use: Public Libraries Survey: Fiscal Year 2001

The Public Libraries Survey (PLS) is conducted annually by NCES through the Federal-State Cooperative System (FSCS) for Public Library Data. The data are collected by a network of state data coordinators appointed by the Chief Officers of State Library Agencies (COSLA). For fiscal year (FY) 2001, the PLS includes data from 9,133 public libraries in the 50 states, the District of Columbia, and the outlying areas of Guam, the Northern Marianas, Palau, and the U.S. Virgin Islands.

Three database files were generated from the FY 2001 PLS: the Public Library Data File, Public Library State Summary/State Characteristics Data File, and Public Library Outlet Data File. The files include data on population of legal service area, number of full-time-equivalent staff, service outlets, public service hours, library materials, operating income and expenditures, capital outlay, total circulation, circulation of children's materials, reference transactions, library visits, children's program attendance, interlibrary loans, and electronic services.

The data and related documentation can be downloaded from the NCES Electronic Catalog in Microsoft Access or ASCII (flat file) formats.

For questions about this data product, contact P. Elaine Kroe (patricia.kroe@ed.gov).

To obtain this data product (NCES 2003–398), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Other Publications

The Nation's Report Card: Reading Highlights 2002

National Center for Education Statistics

The National Assessment of Educational Progress (NAEP), known as "The Nation's Report Card," is authorized by Congress, administered by NCES, and overseen by the National Assessment Governing Board (NAGB). For more than 30 years, NAEP has been the only ongoing national indicator of what American students know and can do in major academic subjects. In 2002, NAEP conducted a national assessment in reading at grades 4, 8, and 12 and a state assessment at grades 4 and 8.

This 20-page publication uses a full-color tabloid format to present highlights from the 2002 reading assessment. It describes assessment content; presents major findings as average scale scores and percentages of students scoring at or above achievement levels for the nation at grades 4, 8, and 12; shows results for participating states and jurisdictions at grades 4 and 8; and discusses performances of selected subgroups defined by gender and race/ethnicity. The publication also includes sample test questions and sample student responses.

For questions about content, contact Arnold Goldstein (arnold.goldstein@ed.gov).

To obtain this document (NCES 2003–524), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

The Nation's Report Card: State Reading 2002 Reports

Laura Jerry and Anthony Lutkus

National Assessment of Educational Progress (NAEP) assessments are administered at both the state and national levels. The NAEP 2002 Reading Assessment collected state-level results for 4th- and 8th-graders and national-level results for 4th-, 8th-, and 12th-graders who attended public schools in states and other jurisdictions that volunteered to participate.

This series of reports provides each participating jurisdiction with an overview of its results from the NAEP 2002 Reading Assessment as well as previous

NAEP reading assessments. Each jurisdiction receives its own customized report, which presents results for public school students in that jurisdiction, along with national results for comparison. Each report also includes information on the sample of students assessed, the metrics for reporting student performance, and how the differences in performance are recorded, as well as a data tool that allows the user to develop custom data tables and perform tests of statistical significance for within- or across-state data comparisons.

Author affiliations: L. Jerry and A. Lutkus, Educational Testing Service.

For questions about content, contact Arnold Goldstein (arnold.goldstein@ed.gov).

To obtain a state report (NCES 2003–526), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Developments in School Finance: 2001–02

William J. Fowler, Jr. (editor)

Developments in School Finance: 2001–02 is the seventh education finance publication from the annual NCES Summer Data Conference. Each year, state department of education policymakers, fiscal analysts, and fiscal data providers attend the conference for fiscal training sessions and presentations by invited experts on developments in the field of education finance. This publication contains 10 of the papers presented at the July 2001 and July 2002 conferences.

The 2001 Summer Data Conference addressed the theme "Making Data Work." Discussions and presentations dealt with topics such as the effective display of finance data, assessing the financial condition of school districts, and the economic efficiency and funding adequacy of school districts. The theme for the 2002 Summer Data Conference was "Common Data, Common Goals," and the topics of education finance addressed included teacher pay, vouchers, measuring the cost of education, and the school district bond rating process.

Editor affiliation: W.J. Fowler, Jr., NCES.

For questions about this publication, contact William J. Fowler (william.fowler@ed.gov).

To obtain this publication (NCES 2003–403), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

The Condition of Education 2003 in Brief

John Wirt and Andrea Livingston

The 2003 edition of *The Condition of Education*, a congressionally mandated NCES annual report, presents 44 indicators of the status and progress of education in the United States. *The Condition of Education 2003 in Brief* is a convenient reference brochure that contains abbreviated versions of 21 indicators from the full-length report, including both graphics and descriptive text.

Topics covered in *The Condition of Education 2003 in Brief* include enrollments in elementary/secondary and postsecondary education; student achievement; transfers from community colleges to 4-year institutions; college persistence rates; trends in English and foreign language coursetaking; out-of-field teaching in middle and high school; undergraduate diversity; changes in tenure policy and hiring; and levels of education funding. The data presented are from many government sources.

Author affiliations: J. Wirt, NCES; A. Livingston, MPR Associates, Inc.

For questions about content, contact John Wirt (john.wirt@ed.gov).

To obtain this publication (NCES 2003–068), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

To obtain the complete* Condition of Education *(NCES 2003–067), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Mini-Digest of Education Statistics 2002

Charlene Hoffman

The *Mini-Digest of Education Statistics 2002* (the 10th edition) is a pocket-sized compilation of statistical information covering the broad field of American education from kindergarten through graduate school. It presents brief text summaries and short tables that serve as a convenient reference for materials found in greater detail in the complete *Digest of Education Statistics*.

The *Mini-Digest* includes sections on elementary/secondary and postsecondary enrollments, teachers and staff, educational outcomes, and finance. The data are from numerous sources, especially surveys and

activities carried out by NCES. Current and past-year data are included, as well as projections for elementary/secondary enrollment through 2012.

Author affiliation: C. Hoffman, NCES.

For questions about content, contact Charlene Hoffman (charlene.hoffman@ed.gov).

To obtain this publication (NCES 2003–061), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

To obtain the complete Digest (NCES 2003–060), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Facilities Information Management: A Guide for State and Local Education Agencies

Education Facilities Data Task Force, National Forum on Education Statistics

Decisions about school funding, renovation, modernization, and infrastructure improvements need to be supported by high-quality and timely data. This guide provides a framework for collecting, evaluating, and maintaining education facilities data and for using this information to answer important policy questions about school facilities. Included are listings of hundreds of facility data elements, information on developing customized information systems and standardizing the definitions of some key measures, and additional resources that will be helpful to those involved in compiling school facilities data.

Author affiliations: The Education Facilities Data Task Force of the National Forum on Education Statistics includes state and local education professionals and consultants from education associations.

For questions about content, contact Lee Hoffman (lee.hoffman@ed.gov).

To obtain this publication (NCES 2003–400), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

NCES Handbook of Survey Methods

Lori Thurgood, Elizabeth Walter, George Carter, Susan Henn, Gary Huang, Daniel Nooter, Wray Smith, R. William Cash, and Sameena Salvucci

NCES is committed to explaining its statistical methods to its customers and seeking to avoid misinterpretation of its published data. This first edition of the *NCES Handbook of Survey Methods* furthers this commitment by presenting current explanations of how each survey program in NCES obtains and prepares the data it publishes. The handbook aims to provide users of NCES data with the information necessary to evaluate the suitability of the statistics for their needs, with a focus on the methodologies for survey design, data collection, and data processing. The handbook contains 28 chapters, 26 devoted to each of the 26 major NCES survey programs and 2 devoted to multiple NCES surveys or survey systems. It is intended for use as a companion report to *Programs and Plans of the National Center for Education Statistics*, which provides a summary description of the type of data collected by each program at NCES.

Author affiliations: L. Thurgood, E. Walter, G. Carter, S. Henn, G. Huang, D. Nooter, W. Smith, R. William Cash, and S. Salvucci, Synectics for Management Decisions, Inc.

For questions about content, contact Marilyn M. Seastrom (marilyn.seastrom@ed.gov).

To obtain this publication (NCES 2003–603), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Funding Opportunities

The AERA Grants Program

Jointly funded by the National Science Foundation (NSF), NCES, and the Institute of Education Sciences, this training and research program is administered by the American Educational Research Association (AERA). The program has four major elements: a research grants program, a dissertation grants program, a fellows program, and a training institute. The program is intended to enhance the capability of the U.S. research community to use large-scale data sets, specifically those of the NSF and NCES, to conduct studies that are relevant to educational policy and practice, and to strengthen communications between the educational research community and government staff.

Applications for this program may be submitted at any time. The application review board meets three times per year. The following are examples of grants recently awarded under the program:

Research Grants

- Marigee Bacolod, University of California, Irvine—Equalizing Educational Opportunities: Who Teaches and Where They Choose to Teach

- Sharon Judge, University of Tennessee—Resilient and Vulnerable At-Risk Children: What Makes the Difference?
- Xiaofeng Liu, University of South Carolina—Professional Support, School Conditions, and First-Year Teacher Attrition
- Ann O'Connell, University of Connecticut—Factors Associated With Growth in Proficiency During Kindergarten and Through First Grade
- Therese Pigott, Loyola University Chicago—Correlates of Success in Kindergarten
- David Post, University of Pittsburgh—Academic Achievement by Working Eighth-Grade Students in Ten Nations
- Catherine Weinberger, University of California, Santa Barbara—High School Leadership Skills and Adult Labor Market Outcomes

Dissertation Grants

- Doo Hwan Kim, University of Chicago—My Friend's Parents and My Parent's Friends: Impact of Parental Resources on Student's Competitiveness for College
- Natalie Lacireno-Paquet, George Washington University—Charter School Responses to Policy Regimes and Markets: The Effect on Service to Disadvantaged Students
- Kate Mahoney, Arizona State University—Linguistic Influences in Differential Item Functioning for English Learners on the NAEP Mathematics, 1996
- William Mangino, Yale University—Adolescent Peer Networks as Social Capital: The Academic Implications of Openness
- Zena Mello, Pennsylvania State University—Across Time and Place: The Development of Adolescents' Educational and Occupational Expectations in the Context of Parental and Neighborhood Socioeconomic Status
- Colin Ong-Dean, University of California, San Diego—Parents' Role in the Diagnosis and Accommodation of Disabled Children in the Educational Context
- Marjorie Wallace, Michigan State University—Making Sense of the Links: From Government Policy to Student Achievement

For more information, contact Edith McArthur (edith.mcarthur@ed.gov) or visit the AERA Grants Program web site (http://www.aera.net/grantsprogram).

The NAEP Secondary Analysis Grant Program

The NAEP Secondary Analysis Grant Program was developed to encourage education researchers to conduct secondary analysis studies using data from the National Assessment of Educational Progress (NAEP) and the NAEP High School Transcript Studies. This program is open to all public or private organizations and consortia of organizations. The program is typically announced annually, in the late fall, in the *Federal Register*. Grants awarded under this program run from 12 to 18 months and awards range from $15,000 to $100,000. The following grants were awarded for fiscal year 2003:

- Dr. Duncan Chaplin, Urban Institute—Estimating Relationships in NAEP
- Linda Cook, Educational Testing Service—Are the Inclusion Policies and Practices for State Assessment Systems and NAEP State Assessments Aligned?
- Dr. Louis DiBello, Educational Testing Service—Skill Profiles for Groups of Students at a Given NAEP Scale Level—Development and Demonstration
- David Grissmer, RAND—Analysis of Central City NAEP
- Andrew Houtenville, Cornell University—Monitoring Students With Disabilities Using NAEP Data
- Brian A. Jacob, Harvard College—Test-Based Accountability and Student Achievement: An Investigation of Differential Performance Trends on NAEP and State Assessments
- Akihito Kamata, Florida State University—Differential Item Functioning Analyses for Students With Test Accommodations on NAEP Test Items
- Donald J. Leu, University of Connecticut—The Impact of Computer Access and Use on Student Reading Achievement
- Christopher Swanson, Urban Institute—Measuring Classroom Instruction Using NAEP

For more information, contact Alex Sedlacek (alex.sedlacek@ed.gov).

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AIR Grants Program

The Association for Institutional Research (AIR), with support from NCES and the National Science Foundation (NSF), has developed a grants program titled Improving Institutional Research in Postsecondary Educational Institutions. The goals of this program are to provide professional development opportunities to doctoral students, institutional researchers, educators, and administrators, and to foster the use of federal databases for institutional research in postsecondary education. The program has the following four major components:

- dissertation research fellowships for doctoral students;
- research grants for institutional researchers and faculty;
- a Summer Data Policy Institute in the Washington, DC, area to study the national databases of the NSF and NCES; and
- a senior fellowship program.

Calls for proposals go out in spring, and proposals are normally accepted through June 30 for work starting no later than September 1 of each year. The following are examples of grants awarded for fiscal year 2003:

- Lamont A. Flowers, University of Florida—Labor Market Outcomes of African American College Graduates
- Heidi Grunwald, University of Michigan—Factors Affecting Faculty Use of Instructional Technology in Traditional Classrooms: A Hierarchical Linear Model Approach
- Aruna Lakshmanan, Louisiana State University—A Longitudinal Study of Adolescent Educational Aspirations and Their Relation to College Choice Using Hierarchical Linear Modeling and Group-Based Mixture Modeling
- Sang Min Lee, University of Florida—Identifying Longitudinal Causal Model for Postsecondary Educational Attainment for Low Socioeconomic Status Students
- Susan Carol Losh, Florida State University—It's in the Details: Dimensions of Education, Gender, and Relations Among Basic Science Knowledge, Attitudes, Understanding Scientific Inquiry, and Pseudoscience Support in the American General Public
- Stephen R. Porter, Wesleyan University—Educating Future Scientists: Understanding the Impact of Baccalaureate Institutions on the Decision to Pursue Graduate Studies in Science and Engineering
- Jim S. Settle, University of Missouri-St. Louis—The Effect of Socioeconomic Status on Year-to-Year Persistence of First-Generation and Continuing-Generation College Students at Two-Year and Four-Year Institutions
- Leslie Stratton, Virginia Commonwealth University—The Sensitivity of Attrition Models to the Timing and Duration of Withdrawal: Analysis Using Beginning Postsecondary Longitudinal Data From 1990–1994

For more information, contact Susan Broyles (susan.broyles@ed.gov) or visit the AIR web site (http://www.airweb.org).

NPEC/AIR Focused Grants

The National Postsecondary Education Cooperative (NPEC) and the Association for Institutional Research (AIR) are pleased to announce the inaugural year of a focused grant program that will fund research and studies to increase understanding and knowledge in a specific issue area that has been identified by the NPEC Executive Committee as critically important to the postsecondary education community. This year the focus is on student success. Proposals may suggest undertaking a variety of activities that focus on student success. Proposals are due January 15 of each year and the grant award period is June 1, 2004, through May 31, 2005.

In 2004, NPEC and AIR plan to make 5 to 10 one-year grant awards ranging up to $15,000 for dissertation work and up to $30,000 for other activities. Grant recipients should plan on making a presentation of their work at NPEC's national conference in 2006. Travel to the conference will be paid by NPEC.

For more information, contact Roz Korb (roslyn.korb@ed.gov) or visit the AIR web site (http://www.airweb.org) for more information and instructions for writing and submitting proposals.

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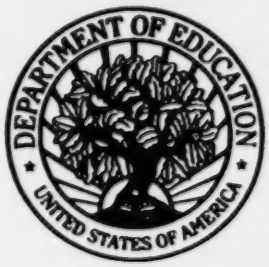

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